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Canada - Dominion-Provincial Relations, Royal
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THE ECONOMIC HISTORY OF THE MARITIME PROVINCES

A STUDY PREPARED FOR THE
ROYAL COMMISSION ON DOMINION-PROVINCIAL RELATIONS

BY

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OTTAWA

1939

Economic History of the Maritime Provinces

EDITORIAL FOREWORD

Dr. S. A. Saunders was retained by the Royal Commission on Dominion-Provincial Relations to assist Dr. Mackintosh in his work for the Commission (The Economic Background of Dominion-Provincial Relations) and to prepare a special study on the economic history of the Maritimes. Dr. Saunders was asked to deal in particular with the historical background, outlining the position of the Maritimes at Confederation and describing the effect of the impact of national policies and of other factors which influenced their economic development.

The method of presentation and any expressions of opinion are solely the responsibility of Dr. Saunders, and not of the Commission.

The study opens with a review of the 1850-80 period, the heyday of Maritime prosperity. Dr. Saunders shows, however, that the period was a transitional one, and already forces were at work which were undermining the basis of the whole economy, dependent as it was on changing trade relationships and transportation techniques. The remaining decades of the century saw increasing pressure on the staple export industries and relative failure in the Maritime efforts to reorient their economy within the framework of the new economic policies of the Dominion.

The Maritimes shared, although proportionately less than most parts of the country, in the great expansion from 1896 to the War, and the economy appeared to have adapted itself to the changed circumstances and to have established a new equilibrium and a basis for moderate expansion. The War brought feverish activity, but also an aftermath in which Maritime industry, with an inflated cost structure and demoralization of some of its specialized export markets, found itself in distress.

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Historical Summary of the Economic Development of the Maritime Provinces

1. The Maritime Colonies in 1850

For the purpose of the present discussion, the year 1850 may be taken as a convenient and suitable starting point. By 1850, the British North American colonies had just about reached their majority. Preferences in the British West Indian markets had disappeared and preferences in the United Kingdom market were being rapidly diminished. The Enabling Act (1846) and responsible government (conceded in both Nova Scotia and Canada in 1848) made complete fiscal freedom inevitable in the course of a few years. In 1849, the repeal of the Navigation Acts removed all restrictions upon colonial shipping. These restrictions had become irksome, especially to the Maritime colonies, after the cessation of preferences in the British West Indies, and after it had become obvious that preferences in the United Kingdom would soon be terminated. By 1850, too, the tide of immigration that had swept over British North America during most of the first half of the nineteenth century had virtually ceased in the Maritime colonies. On the other hand, the Maritime colonies, which had developed as commercial colonies of an overseas empire in an age when the chief instruments, both of world and of local commerce, were sails and wooden ships, were soon to be seriously affected by the revolution in transportation: railways were to unite inland communities; steam was to challenge the age-old supremacy of sail; and the iron ship was to displace the wooden ship.

As with most other colonies under the old colonial system, the economy of the Maritime colonies was based primarily upon the production of a few staples for export. Two staples, fish and forest products, were of special importance: the first was of primary interest to Nova Scotia; the second, to New Brunswick. For fish, the most important market was the British West Indies, followed fairly closely by the United States,

and there was some trade with the Spanish West Indies and with Mediterranean and South American countries. Of the forest products exported, most went to the United Kingdom though some sawn lumber from Nova Scotia went to the British West Indies, and Nova Scotia and New Brunswick had a small trade with the United States. Agriculture, except in Prince Edward Island, was not on an export basis. It was chiefly self-sufficing or ancillary to lumbering, fishing, and other industries. Among mineral products, lime, gypsum, and grindstones had long been exported to the United States and more recently small quantities of coal had been added to the list. Shipbuilding had become a major industry, ships being built for fishing and colonial trade, as well as for sale abroad.⁽¹⁾ Apart from shipbuilding, there was virtually no manufacturing except on a domestic scale.

For the Maritime colonies external markets and sources of supply were of vital importance. During the first half of the nineteenth century most of the exports went to British countries, but as the period progressed, the United States and other foreign countries took an increasing amount and an increasing proportion of the total. Trade figures for the period 1831 to 1851 show a good deal of trade between the colonies, a very substantial export trade from Nova Scotia to the British West Indies, a declining trade from New Brunswick to the British West Indies, and very little trade, either relatively or absolutely, direct from Prince Edward Island to the British West Indies. Of the three colonies, New Brunswick was most dependent upon the United Kingdom market, which took from two-thirds to three-quarters of New Brunswick's exports during the twenty years from 1831 to 1851.

Of imports into each of the three colonies, apart from these products that came from neighbouring colonies, the

(1) In 1849 there were 89 ships with a tonnage of 14,689 built in Prince Edward Island; 221 with a tonnage of 29,422, in Nova Scotia; and 119 with a tonnage of 39,280 in New Brunswick. In Prince Edward Island, ships were built largely for sale to other colonies; in Nova Scotia, for fishing and the provincial carrying trade; and, in New Brunswick, for sale abroad. The importance of the carrying trade to Nova Scotia is illustrated by the fact that in 1846, of a total of 252,000 tons registered in British North America, 141,000 tons were registered in Nova Scotia.

chief sources were the United Kingdom and the United States. From the United Kingdom came considerable quantities of manufactured goods; and from the United States, foodstuffs, and towards the end of the period, an increasing amount of manufactured goods and West Indian products. The heavy export trade from New Brunswick to the United Kingdom assisted in making that colony a heavy importer of United Kingdom commodities. Many British-made goods and many West Indian products reached the Maritime colonies indirectly through the United States, owing to the heavier trade from the United Kingdom and the West Indies to United States ports, and the triangular route of many timber vessels from the Fundy part of New Brunswick, namely, from New Brunswick to the United Kingdom,⁽²⁾ to the United States, to New Brunswick.

2. The Period 1850 to 1880

The period 1850-1880 was one of economic as well as political transition for the Maritime colonies. In 1850 they were still integrally united with the commercial system that had developed in the North Atlantic under the aegis of the old colonial system, but by 1880 they were rapidly becoming an integral part of the continental economy of the new Dominion, as they already were an integral part of its political system. The "pull" seawards, which had dominated the early economic history of the Maritime colonies reached its maximum during this period and then began rapidly to decline. The peak of the shipbuilding industry in the Maritimes was reached in 1864, Confederation was consummated in 1867, the Intercolonial Railway was completed in 1876, and the national policy of protection was inaugurated in 1879. By 1850 railways had made little headway in either the British North American colonies or the United States; but, by 1880, the whole North American continent was being rapidly railroaded.

(2) See Table No. 1 of the Appendix.

Throughout this period international water-borne commerce greatly increased, ⁽³⁾ owing primarily to a growth of ⁽⁴⁾ the trade in bulky commodities, and with this greatly augmented international water-borne commerce went a greatly ⁽⁵⁾ augmented carrying power of the merchant navies of the world. By 1850 the steamship had not materially affected the position of the sailing vessel in the carrying trade, but by 1880 the sailing vessel had been ousted from the most lucrative branches of the carrying trade and was carrying much less than half of ⁽⁶⁾ the water-borne commerce of the world. By 1880, too, because of the larger size of vessels, the greater regularity of sailings, the higher cost of rail than of water transportation, and the increasing overhead with respect to both rail and water carriers, the small or less advantageously situated ports had begun to decline, and a tremendous advantage had been given to ports with an extensive hinterland and a large volume of traffic. The effect of these changes upon the shipbuilding industry of the Maritimes became abundantly clear before the period came to a close. Wooden shipbuilding in the Maritimes

(3) The international water-borne commerce of the world is estimated to have been approximately 20,000,000 tons in 1840, to have averaged 56,000,000 tons for the decade 1861-1870, and 88,000,000 tons for the decade 1871-80, and to have stood at 113,000,000 tons in 1880.

(4) In 1840, there were 1,400,000 tons of coal exchanged in international water-borne commerce, and this figure had increased to 39,200,000 tons by 1880. Iron increased from 1,100,000 tons in 1840 to 8,500,000 tons in 1880; grain increased from 1,900,000 tons in 1840 to 16,800,000 tons in 1880; and timber increased from 4,100,000 tons in 1840 to 9,000,000 tons in 1880.

(5) The total carrying power of vessels has been estimated at approximately 10,500,000 tons for 1840, at 21,700,000 tons for 1860, at 25,100,000 tons for 1870 and at 37,900,000 tons for 1880.

(6) In 1840, steamships accounted for 14.0% of total carrying power; in 1860, for 31.5%; in 1870, for 48.8%; and in 1880, for 61.5%. In 1880, out of a total tonnage of 20,280,000 steam vessels accounted for only 5,880,000 tons, but owing to the greater speed of the steamship and its greater carrying capacity, the steamship is considered in these estimates to have four times the carrying power of the sailing vessel of equal tonnage.

reached its peak, as already stated, in 1864, and although it maintained a high level for another decade, it fell off rapidly thereafter. This is borne out by details given in Table No. 2 of the Appendix.

Throughout this period the range of markets in which the Maritimes bought and sold was continually widening. Nova Scotia made good progress in opening up markets in the foreign West Indies, and New Brunswick increased the range of her markets for forest products. The relative importance of the chief markets, to as late as 1871, may be seen in Table No. 1 of the Appendix.

The export trade increased considerably throughout this period, especially exports of fishery products from Nova Scotia, of forest products from New Brunswick, and of agricultural products from Prince Edward Island. Exports of potatoes from both Nova Scotia and Prince Edward Island increased, but for a large range of agricultural products both New Brunswick and Nova Scotia became more dependent upon outside sources of supply. Exports of coal rose rapidly during the period of the Reciprocity Treaty and fell off rapidly thereafter. Exports of mineral products, other than coal, seem to have been higher at the end of the period than at the beginning, but the gain was not very great and was certainly not continuous.

The diversity of economic activities in the Maritimes and the relative importance of the various branches of industry in the export trade can be seen in Table No. 3 of the Appendix.

The railway building programme had got under way in New Brunswick by 1853, in Nova Scotia by 1854, and in Prince Edward Island by 1871. By 1866 New Brunswick had 218 miles of railway, and Nova Scotia 147 miles; and by the same date Nova Scotia had spent on the construction of railways \$7.5 million, and had paid out in interest on railway debt \$2.5 million.

(7) See Professor Creighton's study British North America at Confederation, especially chapters VII and XI for the effects of railways on the public finance systems of the various colonies.

The completion of the European and North American Railway in 1871 and of the Intercolonial Railway in 1876 linked the Maritime Provinces with the continental area, and by the close of the period a network of railways had begun to spread over the three provinces. By 1882 the three Maritime Provinces had 1,577 miles of railways.

From the preceding discussion, brief as it is, three things stand out clearly: (1) the Maritimes were very sensitive to world-wide economic forces; (2) these forces favoured the Maritimes throughout most of the period but became adverse in the late 1870's; and (3) the revolution in land and water transportation was forcing the Maritimes to look landwards rather than seawards in their search for economic advantages. So far, no more than mention has been made of the Reciprocity Treaty with the United States, or of Confederation, each of which was extremely important to the people of these colonies; but important as they were, neither was fundamental in determining the economic trends in the Maritimes during this period.

3. The Reciprocity Treaty

The break-up of the old colonial system in the middle of the century was fraught with far-reaching consequences for all the British North American colonies, but the colony of Canada was far more apprehensive and far more seriously affected than were the Maritime colonies. This is evidenced by the appearance in Montreal, in 1849, of the Annexation Manifesto, and by the vigour with which the colony of Canada pushed for the Reciprocity Treaty with the United States to provide an alternative sheltered market for the sheltered imperial markets already lost. Exports from all the colonies to the United States had for some time been on the increase, but before the Reciprocity Treaty was consummated the colony of Canada had a much larger stake,

both absolutely and relatively, in the American market than had the Maritime colonies. Furthermore, the colony of Canada was far more dependent upon American transportation facilities than were the Maritime colonies. Although these points are freely admitted on all sides, there is, however, a widespread belief that the Maritime colonies actually gained more from the Reciprocity Treaty than did the colony of Canada.

Exports from the Maritimes to the United States increased greatly during the period of the Reciprocity Treaty, but the most rapid increase took place during the period of the Civil War. ⁽⁸⁾ However, the percentage increases for the colony of Canada exceeded the percentage increases for Nova Scotia and New Brunswick and for the Maritime colonies as a unit; ⁽⁹⁾ the percentage that exports from Canada to the United States constituted of total exports were much higher than corresponding percentages for the Maritime colonies; ⁽¹⁰⁾ and exports per head from the colony of Canada to the United States were much higher than exports per head from the Maritime colonies to the United

(8) See Table No. 4 of the Appendix.

(9) Exports to the United States
(1853 = 100)

Year	Canada %	Nova Scotia %	New Brunswick %	Prince Edward Is. %
1853	100.0	100.0	100.0	100.0
1860	206.2	160.6	203.8	321.0
1864	...(a)	176.0	216.4	312.1
1865	238.8	260.4	297.0	487.4
1866	364.6	232.3	317.3	87.2

(a) 1864 is omitted for Canada because the figures available are for the half year only.

(10) Exports to the United States as Percentages of Total Exports (a)

Year	Canada %	Nova Scotia %	New Brunswick %	Prince Edward Is. %
1853	45.7	25.8	11.4	21.1(b)
1854	45.4	25.5	8.8	10.7(b)
1855	70.6	32.7	14.9	21.9
1856	62.9	30.1	16.2	16.8(b)
1857	54.9	17.3	36.0
1858	56.0	32.3	20.2	41.7
1859	61.4	33.2	22.0	49.2
1860	58.4	33.7	27.1	38.7(b)
1861	43.1	26.4	18.5	29.7(b)
1862	49.3	32.1	23.1	29.7(b)
1863	52.1	28.5	25.2	50.4
1864	62.5	34.1	25.0	38.2
1865	59.3	41.0	31.4	42.7(b)
1866	70.4	40.1	29.1	8.8

(a) This table is based upon figures appearing in Table No.4 of the Appendix.
(b) Exports to all foreign countries (i.e. non-British).

(11) States. This latter circumstance is most impressive, because total exports per head were much higher for the Maritime colonies than for the colony of Canada.

Much of the prosperity during the latter years of the Reciprocity Treaty must be attributed to the fortuitous circumstances arising out of the Civil War. The influence of the American Civil War seems seldom to have been given sufficient weight, but that the Maritime colonies benefited greatly is apparent when it is realized: (1) that the American merchant marine dropped from 2,496,894 tons in 1861 to 1,387,566 tons in 1866; (2) that the American fishing fleet dropped from 204,197 tons in 1862 to 98,231 tons in 1866; and (3) that tidy fortunes were made in running the blockade with war supplies to the South and cotton to England. There is also to be taken into account the advantages accruing from the disturbance to production and prices in the northern States. By 1865 war time prices were more than double the 1860 level.

4. Confederation

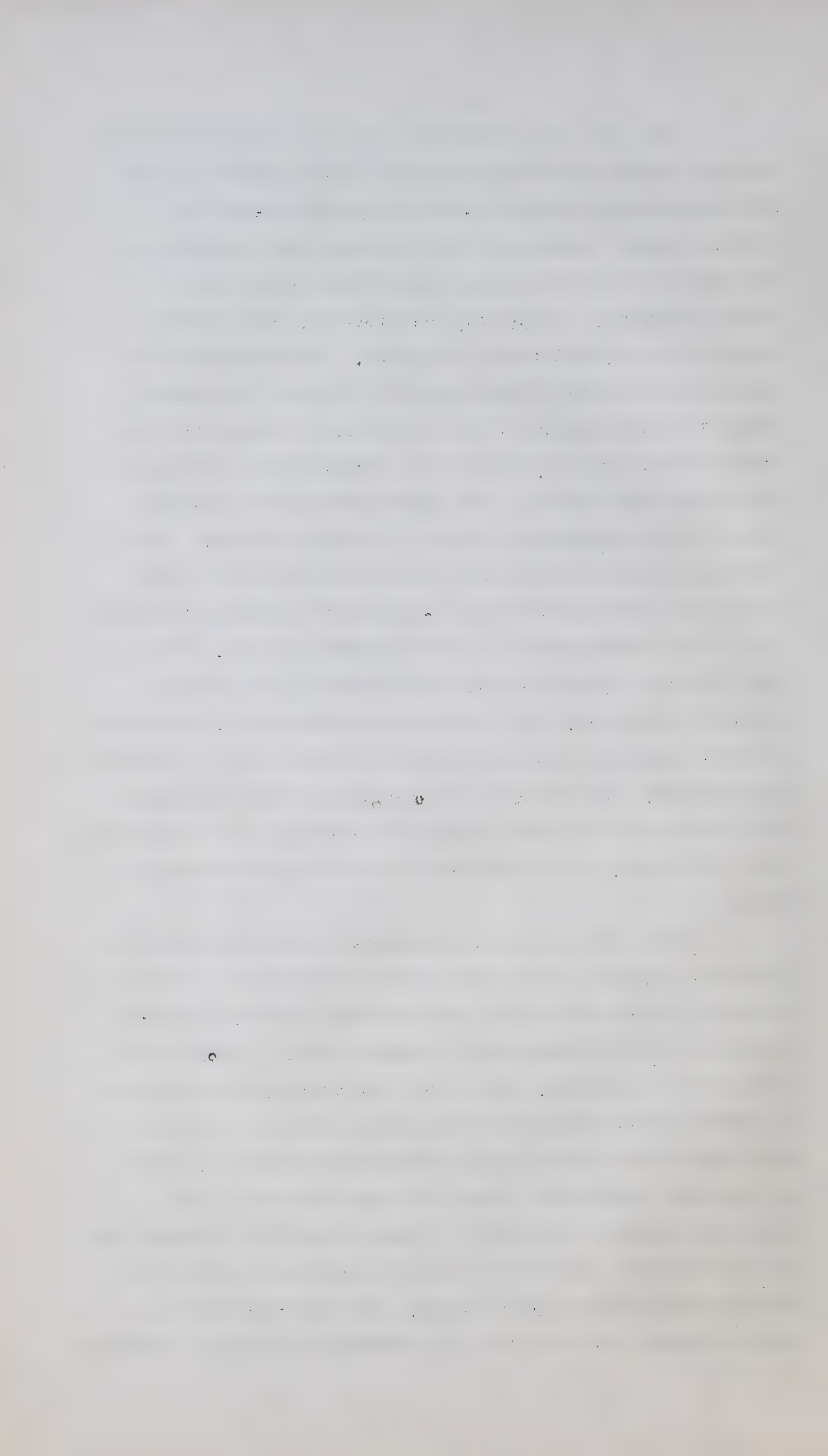
Although the American market was more important to the colony of Canada than to the Maritime colonies, and, although exports of commodities from the Maritime colonies to the United States were greatly increased by factors unrelated to the Reciprocity Treaty, nevertheless the American market was very important to all British North America, and the prospect of the abrogation of the Reciprocity Treaty was viewed with apprehension in all quarters. As a partial offset to the loss of the American market it seems clear that many favoured the union of the British North American colonies.

(11) Exports to the United States per Caput - Year 1860

Canada	\$7.35
Nova Scotia	6.56
New Brunswick	4.78
Prince Edward Is.	4.79
Maritime colonies	5.66

For many years before the union of the British North American colonies had become an issue there existed the idea that these British colonies would ultimately become one political unit. Reasons for the existence and persistence of this idea are not difficult to find. The colonies had a common allegiance, in that they were British, and a common example in the United States of America. The likelihood of union with the United States seems now to have been remote, except through conquest. The possibility of conquest by the United States helped to quicken and strengthen the feeling of unity among the colonies. More important than the military threat was the commercial threat of the United States. Nova Scotia had fought long to keep the United States out of the British West Indies, and longer to keep United States fishermen out of the fishing grounds of British North America. The three Maritime colonies resented restrictive United States shipping regulations, and the refusal on the part of the United States to admit for registry vessels that were built in British North America. The colonies had to carry on their diplomacy with the rest of the world through the Colonial Office in London, and, in doing so, often found that they held many interests in common.

There is an obvious geographical relation between the north shore and the south shore of the St. Lawrence, and historically the two areas have never differed in their political allegiance for any considerable length of time. Following the conquest by the English, some Jersey and Guernsey merchants set up fishery establishments on both shores, from the Strait of Belle Isle on the north and Cape Breton on the south to Gaspe in the west. During the second and third quarters of the nineteenth century, the firm of Gilmour, Rankin and Company, and its subsidiaries, carried on extensive lumbering operations in both New Brunswick and Lower Canada, and used Montreal as a centre through which supplies were secured and exchange operations



were transacted. Attempts to link the south shore and the north shore of the St. Lawrence by steamship connections were made repeatedly from the 1820's onwards, and finally, in 1858, a service that proved to be continuous was established.

The colony of Canada, with the St. Lawrence ice-bound during part of the year, and with a large area walled in by the United States, had periodic attacks of claustrophobia. Its geographical isolation and its dependence upon United States ports for access to world markets were undoubtedly factors in stimulating the colony to seek union with the Maritime colonies. The Grand Trunk had been pushed eastwards to Riviere du Loup as early as 1862, with the Maritime colonies as its ultimate objective, and even as late as 1867 it was by no means certain that the bonding privilege through American territory would be continued.

The Maritime colonies lacked any extensive hinterland upon which to draw for a large volume of traffic, and the American interior was well supplied with seaports far more accessible than either Saint John or Halifax. The absence of an extensive hinterland and the growing advantages, even before 1867, of a large volume of traffic were considerations always present with Maritime colonies' statesmen when considering transportation policy. The logic of circumstances at the time seemed to suggest that the Maritime colonies could best solve their problems by direct rail connections with the colony of Canada; and that the colony of Canada, with its seaports ice-bound during the winter, and with its dependence upon American seaports, could best solve its problems by direct rail connection with the Maritime colonies.

The fiscal weakness of the colony of Canada had been made evident before the railway era, and the railway-building programmes in the Maritime colonies, prior to Confederation, had made evident the fiscal weakness of those colonies. By 1867,

the common problem of financing railway construction had undoubtedly added a powerful influence in favour of Confederation. (12)

The prospects that Confederation would provide a larger market were brighter for the people of the colony of Canada than they were for the people of the colonies by the sea, with the possible exception of the coal interests in Cape Breton Island, who, by the middle of the 1860's had come to consider that their future was bound up with the market in British North America, rather than with the market in the United States. (13) The trade of the Maritime colonies was far flung, and many, though not all, of their exports had to be marketed in competition with similar products exported from the sister colony of Canada. The Maritimes, too, were relatively more dependent upon export trade than was the colony of Canada. (14) It is not to be wondered

(12) One aspect of this influence can be illustrated by a short excerpt from E.M. Saunders, "The Life and Letters of the Rt. Hon. Sir Charles Tupper, Bart." :

"Dr. Tupper took with him to England, Provincial 6 per cent bonds of Nova Scotia to raise the money required to build the Pictou Railway, about \$2,000,000. Messrs. Baring & Glynne, the Nova Scotia Government's financial agents, said they could not obtain more than 95 per cent for them. Dr. Tupper told them that he expected Confederation would shortly be accomplished, which would raise Nova Scotia's credit, and asked them to hold the bonds as a collateral security and advance him the money at 6 per cent. This they did, and after Confederation had taken place, those bonds were sold for 112 per cent." (p. 118)

See also Professor Creighton's study, British North America at Confederation, c. VII, VIII, XI, XII.

(13) Brown, Richard. "The Coal Fields and Coal Trade of the Island of Cape Breton." London: 1871.

(14) Trade Per Caput - 1860

	<u>Exports</u>	<u>Imports</u>	<u>Total</u>
	\$	\$	\$
Colony of Canada	12.57	13.72	26.29
Nova Scotia	19.45	26.40	45.85
New Brunswick	17.63	27.83	45.46
Prince Edward Island	12.35	13.83	26.18
Maritime colonies	17.89	25.41	43.30

The figures for the Maritime colonies are slightly inflated by the inclusion of intra-maritime trade. The figures do not include returns for ships sold abroad; or short returns from inland ports, an estimate of unrecorded exports from the colony of Canada to the United States; or invisible items. Invisible items were very important to the Maritime colonies, especially to Nova Scotia, because of the relatively large income from shipping freights.

at, therefore, that much of the discussion on Confederation centred about the problem of export trade. Critics pointed out the many commodities exported from the Maritimes that competed directly with commodities exported from the colony of Canada, and the greater dependence of the Maritimes upon export markets. The supporters of Confederation pointed out the considerable and growing market for Nova Scotia coal in the St. Lawrence valley, the possibility of supplying fish to Ontario and Quebec, and the larger market that was opening up for manufactured goods. (15)

The assumption has often been made that Confederation brought immediate economic reverses to the Maritime Provinces, but such an assumption is hardly warranted. Admittedly, a short-lived trade recession occurred about the same time as Confederation, but a study of the period leads to the conclusion that this recession was due to the consequences of the Civil War and the abrogation of the Reciprocity Treaty. Although the export figures for 1868 were considerably below those of the peak years 1865 and 1866, by 1873 they had fully recovered all lost ground, (16) when once allowance is made for incomparable elements in the figures for the two periods. The rate of increase in the population of the Maritime Provinces had been falling steadily since the middle of the century: from 24.6% for the decade 1851-1861 to 15.5% for the decade 1861-1871, and to 13.5% for the decade 1871-1881. This increase of 13.5% for the decade 1871-1881 compares quite favourably with 14.1% for Quebec and 18.9% for Ontario, both of which, especially Ontario, were much less mature economically than were the Maritime Provinces. (17) During the decade 1870 to 1880 there was also a substantial increase in manufacturing: the number of establishments increased by almost 1800; capital investment by over \$8 million; employment by over 12,000; and the gross value of production by over (18) \$10.7 million.

(15) For survey of arguments see Professor Creighton's study, c.VII.

(16) See Appendix, Table 1.

(17) See Appendix, Table 5, for population increases.

(18) Bureau of Statistics, The Maritime Provinces in their Relation to the National Economy of Canada (1934) p. 71.

However, Confederation could not as yet have seriously affected the economic situation. True, the tariff rates were different from what they had been before Confederation, but Galt's tariff of 1866, which was taken over almost unchanged by the Dominion, was about the same as, or probably slightly lower than, the tariff that had been in effect in New Brunswick, and though higher than the former rate in Nova Scotia, was not sufficiently higher to have had any considerable consequences. The customs tariff remained until 1879 at substantially the same level as in 1867.⁽¹⁹⁾ Moreover, until the completion of the Intercolonial Railway in 1876, the Maritime Provinces were relatively isolated from the central provinces, and trade with the central provinces had to follow old routes,⁽²⁰⁾ a condition which, in itself, would have prevented the flooding of Maritime markets with the manufactures of Central Canada.

(19) See Professor Creighton's study, Section XI, subsection III.

(20) The completion of the European and North American to Portland in 1871 gave continuous though indirect rail service for part of New Brunswick with Central Canada.

admitted on all sides, and it is, however, a well-known fact that the Maritime colonies actually gained more from the Reciprocity Treaty than did the colony of Canada.

Exports from the Maritimes to the United States increased greatly during the period of the Reciprocity Treaty, but the most rapid increase took place during the period of the Civil War. (8) However, the percentage increases for the colony of Canada exceeded the percentage increases for Nova Scotia and New Brunswick and for the Maritime colonies as a unit; (9) the percentage that exports from Canada to the United States constituted of total exports were much higher than corresponding percentages for the Maritime colonies; (10) and exports per head from the colony of Canada to the United States were much higher than exports per head from the Maritime colonies to the United

(8) See Table No. 4 of the Appendix.

(9) Exports to the United States
(1853 = 100)

Year	Canada %	Nova Scotia %	New Brunswick %	Prince Edward Is. %
1853	100.0	100.0	100.0	100.0
1860	206.2	160.6	203.8	321.0
1864	...(a)	176.0	216.4	312.1
1865	238.8	260.4	297.0	487.4
1866	364.6	232.3	317.3	87.2

(a) 1864 is omitted for Canada because the figures available are for the half year only.

(10) Exports to the United States as Percentages of Total Exports

Year	Canada %	Nova Scotia %	New Brunswick %	Prince Edward Is. %
1853	45.7	25.8	11.4	21.1(b)
1854	45.4	25.5	8.8	10.7(b)
1855	70.6	32.7	14.9	21.9
1856	62.9	30.1	16.2	16.8(b)
1857	54.9	17.3	36.0
1858	56.0	32.3	20.2	41.7
1859	61.4	33.2	22.0	49.2
1860	58.4	33.7	27.1	38.7(b)
1861	43.1	26.4	18.5	29.7(b)
1862	49.3	32.1	23.1	29.7(b)
1863	52.1	28.5	25.2	50.4
1864	62.5	34.1	25.0	38.2
1865	59.3	41.0	31.4	42.7(b)
1866	70.4	40.1	29.1	8.8

(a) This table is based upon figures appearing in Table No. 4 of the Appendix.
(b) Exports to all foreign countries (i.e. non-British).

(5) The Period 1880 to 1900

In the Maritime Provinces the period 1880-1900 was marked by a drastic reduction in the rate of growth of population, by far reaching changes in the economy of the region, and by a growing integration of the economy with the economy of the rest of the Dominion. The impact of technological changes in transportation was felt severely in the Maritime Provinces and the adjustments that these changes necessitated had to be made during a period of depression that was international, if, indeed, not world-wide in its incidence. Furthermore, the national policy of protection, inaugurated in 1879, was exerting its influence for good or ill, and the national transportation policy, which took shape during this period, was to have noticeable effects before the close of the century.

The rate of growth of population in the Maritime Provinces had, by 1881, begun to slow down very considerably, but from 1881 to 1891 the increase was only 1.1%, and from 1891 to 1901, only 1.5%. Emigration from the Maritime Provinces to other parts of North America became pronounced during the 1860's although it had been observed as occurring sporadically from the beginning of the century, and it is estimated that by 1881 over 100,000 persons born in the Maritime Provinces were resident in the United States. During the years 1881-1900 the tide of immigration to the United States continued to flow and the tide of immigration to the new areas of Canada set in. The population of the central provinces increased 9.6% during the decade 1881 to 1891, and 6.4% during the decade 1891 to 1901; and for the whole Dominion the increases were 11.8% from 1881 to 1891 and 11.1% from 1891 to 1901. From these few figures it becomes clear that nowhere in the Dominion was expansion rapid

despite the opening up of the West with the completion of the Canadian Pacific in 1886. From 1881 to 1891 approximately 300,000 native-born Canadians emigrated to the United States, and, in addition to these, perhaps 800,000 immigrants to (21) Canada moved on to other countries or returned home.

The railway-building programme during the twenty-one years following 1882 gave to the Maritime Provinces, by 1903, 2,758 miles of railway, an increase over 1882 of 1,181 miles. In 1889 the short line between Montreal and Saint John was completed, and the Maritime Provinces were then served by the Canadian Pacific Railway as well as by the Intercolonial Railway. In 1881 the line from New Glasgow to Mulgrave was opened, providing through connections to Halifax from as far east as the Strait of Canso. By 1891 the road had been extended eastwards to Sydney. Through connections between Halifax and Yarmouth, via Windsor, Annapolis, and Digby, were established in 1891; but a line from Halifax to Yarmouth, along the south shore, was not completed until 1906.

The building of trunk line railways encouraged the inauguration of steamship services, and after the completion of the short line from Montreal to Saint John (1889), steamship services from the port of Saint John began to develop. In 1895 the Beaver Line transferred its terminus from Portland, Maine, to Saint John, New Brunswick, and was given a small mail subsidy by the Dominion government. Up to this time the contracts for mail subsidies made Maritime Provinces' ports merely ports of call. In 1897 mail subsidies were made applicable only to vessels that made their turn-rounds at Canadian ports.

(21) See Analysis of the Stages in the Growth of Population in Canada. Ottawa: Dominion Bureau of Statistics, 1935.

In 1850 the United Kingdom subsidized a steamship line from Halifax to the West Indies, and another line from Halifax to Newfoundland. The West Indian service was continued until 1886. In 1881 there was inaugurated a steamship service between Canada and Brazil, subsidized by the governments of the two countries, and provision was made for calls at West Indian ports. When the British mail subsidy for the service from Halifax to the West Indies was terminated (1886), the Canadian government stepped in and subsidized a similar service, which, as the years went by, was greatly increased. One year after the completion of the short line from Montreal to Saint John, the Canadian, West Indian, and South American Steamship Company, Limited, began a service from the port of Saint John to as far south as British Guiana. In 1888 there were from sixty to seventy sailing vessels trading from Halifax to the West Indies, and Halifax merchants were extremely critical of the new Dominion policy of subsidizing steamship services to the West Indies. After the middle eighties, the switch from sailing vessels to steam vessels was very rapid, especially in the West Indian trade, and the increasing amount of that trade that went through American ports was a factor of considerable importance to the Maritime Provinces. (22)

There had always been a considerable amount of commerce between the Maritime Provinces, especially Nova Scotia, and Newfoundland. In 1850 the United Kingdom subsidized a steamship service between Halifax and Newfoundland. Steamship

(22) "There are very few vessels belonging to the Maritime Provinces engaged in the West Indian trade, compared with what used to be employed...they are running between New York and the West Indies; whilst formerly they used to trade from ports in the Maritime Provinces."

(D. H. C. Debates, March 14, 1890, Welsh.)

connections grew until, in 1893, there were, between Halifax and Newfoundland, four services, three to St. John's and one to the West Coast. In 1896, when the Newfoundland Railway from St. John's to Port-aux-Basques was completed, a tri-weekly steamship service from Port-aux-Basques to Cape Breton was inaugurated.

Halifax has enjoyed regular steamship connections with Liverpool since 1840. From 1840 to 1867 the Cunard steamships made Halifax a port of call. In 1867, when the Cunard steamships stopped calling, because the amount of business done did not justify the time lost, the Inman Line contracted to carry the mail between Halifax and Liverpool. In 1871 the Allan Line replaced the Inman Line in rendering this service. The differences between these pre- and post-Confederation services were that the pre-Confederation services were subsidized by the United Kingdom and were rendered during the entire year, whereas the post-Confederation services were subsidized by the Dominion government, and after 1876 were rendered during the winter only.

With the coming of railways and the establishment of steamship connections with the larger seaports the coasting trade was stimulated, because cargoes were landed at the larger centres, whence they were distributed to smaller centres along the coast. In 1887 Sir Charles Tupper boasted that with increased rail connections in the Maritime Provinces and in the Province of Quebec had come an increase in the coasting trade of the Atlantic Provinces. The number of entries of coasting vessels in the four provinces increased from 21,323 in 1877 to 33,330 in 1887, and the gross tonnage entered increased from 5,321,726 in 1877 to 9,358,735 in 1887. Most of this increase was in the Maritime Provinces, as indicated by the

increase in the number of entries from 12,268 in 1877 to 23,611 in 1887. Had Sir Charles been speaking ten years later, his account would not have been so glowing, because, as branch line railways were extended, these branch lines, and not the coasting vessels, re-distributed the commodities from the centres at which trade tended to concentrate.

Railway building during the seventies had injured the small ports, but railway building during the eighties and nineties, coupled with more extensive steamship connections, severely crippled them. The effects of these changes upon many of the seaports in the Maritime Provinces can be illustrated by a few remarks respecting Yarmouth, Nova Scotia. The registry of vessels reached its peak in Yarmouth in 1879, when there were registered 297 vessels with a tonnage of 153,515. By the beginning of 1884, the number of vessels registered had declined to 225 and the tonnage to 118,504. In 1884, there arrived the first steamer to bring cargo direct from England to Yarmouth. Steam continued to displace sail, and the larger ports to displace the smaller ports, and Yarmouth gradually became merely a Nova Scotian town, distinguished by steamship connections with Boston and New York. The downward turn in the fortunes of Yarmouth in the early 1880's is evident, also, in the record of her Marine Insurance companies. ⁽²³⁾ Emphasizing the waning fortunes of Yarmouth, there came to that port, in 1882, an agency of the Boston Marine Insurance Company to replace the locally owned and controlled companies that were so rapidly closing their doors.

(23) Yarmouth Marine Insurance Ass'n. - founded 1837, closed 1883.
Acadian Insurance Company, - " 1858, " 1881.
Commercial Insurance Company, - " 1861, " 1886.
Atlantic Insurance Company, - " 1865, " 1881.
Pacific Insurance Company, - " 1870, " 1882.
Oriental Insurance Company, - " 1874, " 1883.

Financial institutions, as well as the telegraph, the railway, and the steamship, played a part in hastening the transition from the old economic structure based on wood and wind to the new economic structure based on steel and steam. In 1907 shipments of fish from Gaspe to Mediterranean ports were being sent by rail to New York, thence by steamship to their ultimate destination, whereas a few years earlier practically all had been sent in sailing vessels direct. The change in route and in the method of transport was attributed, not to the saving in time, but to the fact that banks would make advances when the shipments went by rail and steamer, whereas they would not make advances when the shipments went by sailing vessels.

As shipbuilding declined, as more and more of the locally-owned and locally-operated vessels went out of existence, as forest resources became relatively exhausted in some of the better farming areas, and as urban population grew, agriculture showed a tendency to become more specialized, as evidenced by the rapid increase in the production of creamery butter and factory cheese during the decade 1890 to 1900, and by the rapid increase in the exports of apples during the two decades 1880 to 1900. The production of creamery butter increased from 16,040 pounds in 1890 to 1,840,245 pounds in 1900; and, of factory cheese, from 811,650 pounds in 1890 to 6,918,352 pounds in 1900. The increase in the production of factory cheese was, in part, the result of an effort in the Maritime Provinces to share in the extensive and growing trade in cheese that Ontario and Quebec had with the United Kingdom. The success achieved in the production of cheese during the decade 1890 to 1900 was not sustained, but the export trade in apples from Nova Scotia to the United Kingdom, which was established on an enduring basis in the early 1880's, continued to grow.

Because Halifax was easily reached from Boston and New York, there was plenty of tonnage available in which to transport the apples across the Atlantic. The greater speed and regularity of the steamship over the sailing vessel made it possible to land the cargoes in the United Kingdom in consistently good condition. The development of the export trade in apples from Nova Scotia to the United Kingdom must be attributed largely to the faster service that the steamship made possible, and may be considered as a partial compensation for the disaster that the steamship had brought to Maritime shipping and Maritime shipbuilding. By the close of the century, too, it was being appreciated that the steamship was helping to widen the markets in the Caribbean for Maritime potatoes.

With the decline in the shipbuilding industry went an increase in the production and export of sawn lumber, and the groundwood pulp industry, which was established in Nova Scotia by 1890, was making good progress in both Nova Scotia and New Brunswick by 1900.

The national policies played a part in these transitions and at least assisted in directing capital and labour into certain industrial channels. (The policy of railway building, encouraged by both Federal and Provincial governments, and higher tariffs and bounties for iron and steel products were doubtless the dominant factors in the development of the iron and steel industry in the Maritime Provinces.)⁽²⁴⁾ The springing up of a

(24) For an analysis of the effects of tariffs upon the iron and steel industry and for a statement of bounty and tariff rates to as late as 1914, see Donald, W.J.A., The Canadian Iron and Steel Industry. Boston: 1915.

considerable number of textile factories in the early 1880's was encouraged by greater protection. In 1879, the coal mining industry in Nova Scotia was given direct aid to the extent of a duty of 50¢ per short ton on bituminous coal, which was increased to ⁶⁰50¢ per short ton in 1880 and lowered to ⁵³53¢ per short ton in 1897; and indirect aid through the railway building policy and protection to the iron and steel and other coal-consuming industries.

The decline of shipbuilding and of the carrying trade, with the consequent decline of related businesses, such as marine insurance, and the inauguration of the national policies led to a re-direction of efforts and to the employment of capital in enterprises that looked landwards rather than seawards.

"The Yarmouth Woollen Mill was erected in 1881; The Power Knitting Company was organized in March, 1883; and the Yarmouth Duck & Yarn Company was incorporated in 1883."
(Lawson - "Yarmouth-Past and Present")

In the same period, similar transitions were taking place in other parts of the Maritimes, evidenced by the establishment of cotton factories at Windsor, Halifax, Moncton, Saint John, Marysville, and Milltown; of sugar refineries at Moncton and Halifax; and of steel and glass works at New Glasgow.

During the 1880's and 1890's the iron and steel industry of the Maritime Provinces obtained the footing necessary for the very rapid advance that took place in the pre-war period of the present century. Car shops at railway centres became an important factor, and a number of small rolling mills were established, principally in Halifax, Saint John, and Amherst. In 1893 J. Rhodes Curry & Company, Amherst, turned out the first railway cars that were manufactured in Canada. In 1896 the Londonderry Iron Company (Londonderry, Nova Scotia) was obliged to close its doors, but, by 1900, what

was in 1880 a comparatively small forge company at Trenton, Nova Scotia, had grown into the Nova Scotia Steel & Coal Company, with large establishments at Trenton and New Glasgow, and controlling extensive coal deposits in Cape Breton, and iron ore deposits in Newfoundland. The Nova Scotia Steel & Coal Company was a local enterprise financed by local capital. When it was organized, in 1900, its capital was made up of approximately \$1,000,000 of preferred stock, and approximately \$5,000,000 of common stock, of which perhaps not more than \$2,000,000 was promotion stock.

In 1899 the Dominion Iron and Steel Company was organized, and proceeded to erect a plant and furnaces at Sydney, Nova Scotia. The moving spirit of this enterprise was H.M. Whitney of Boston, who, as early as 1893, had brought together a number of the small mining companies in Cape Breton to form the Dominion Coal Company. The first furnace of the Dominion Iron & Steel Company was not blown in until February, 1901, and therefore the history of this company comes into the following period. But of considerable importance to the present period was the appearance, in 1893, of foreign capital on a fairly substantial scale, and the introduction of outside control into a major Maritime industry.

The rapid growth of "Scotia", as the Nova Scotia Steel & Coal Company was called, and the coming of the Dominion Iron & Steel Company in 1899 were indicative of the effect upon the Maritime Provinces of the period of expansion that set in about the middle 1890's. Elsewhere in the Maritime Provinces, too, by the late 1890's, other old industries were being expanded and other new industries were coming into being. "Canada's Century" was just round the corner, and the Maritime Provinces, as an integral part of the Canadian economy, seemed determined, when that century arrived, to make their contribution and to share in its advantages.

(6) The Period, 1900 to 1920.

The period of expansion that set in about 1896 was reflected in Canada by the rapid settlement of the Prairie (25) Provinces, by the construction of a large railway mileage, and by the arrival of a large number of immigrants. From 1914 to 1918, problems of prosecuting the War, and from 1918 to 1920 problems of demobilization, replaced those attendant upon rapid expansion in a new country. The Maritime Provinces were affected by the general economic forces that were so strongly reflected in Canadian expansion, by particular aspects of the Canadian development, and by the manifold dislocations that came with the Great War, and with the immediate post-war period.

From the middle 1890's until the outbreak of the Great War, world prices were rising as markets for raw materials and foodstuffs expanded. The Maritime Provinces were in a position to supply to world markets, lumber, fish, potatoes, apples, and a limited range of minerals. At the beginning of this period, most of the iron and steel products, of the other manufactures, and of the coal, produced in the Maritime Provinces, were disposed of in the domestic market. As the Canadian market expanded, the output and range of these commodities could be increased, and to the home market could be diverted foodstuffs and raw materials that were then being shipped abroad. The Maritimes were also in a position to supply a considerable number of settlers who helped to people the vacant spaces in the Canadian West. Under these various stimuli, industries expanded and population increased; and, in the process, the Maritimes were assisted in furthering those far-reaching readjustments that had begun about a quarter of a century earlier, and that had been made necessary by the coming of the railway and the steamship.

(25) Railway mileage in Canada increased from:
17,657 in 1900 to
24,731 in 1910 and to
38,805 in 1920.

The most noticeable developments during this period took place in the coal and the iron and steel industries.

The coal industry had first become important in the middle of the nineteenth century, largely because of the growing demands of the American market. Sales to the United States fell off after the abrogation of the Reciprocity Treaty and as production from the United States mines increased. As an alternative, the industry turned to the market in the St. Lawrence valley. Competition in the St. Lawrence valley from English coal brought in at distress cargo rates was keen, but sales mounted gradually except during the severe depression of the 1870's.

For the coal mining industry of Nova Scotia, the period 1880 to 1913 was one of rapid expansion. Production in 1880 was 1,177,000 short tons; in 1913 it reached a total of 7,980,000 short tons, an increase in the thirty-three years of almost sevenfold. Production in 1913 has been, indeed, an all-time high. This remarkable expansion can be attributed mainly to: the large increase in railway mileage and railway traffic⁽²⁶⁾; the establishment of a local iron and steel industry⁽²⁷⁾; and the rapid development of coal-consuming industries in the province of Quebec. Throughout this period, the local market and the St. Lawrence market were of paramount importance, and, despite the tremendous increase in production from 1880 to 1913, they absorbed 87.7% of the total sales for the quinquennium 1911-1915.⁽²⁸⁾ Sales to the United States had revived at the turn of the century, and for the period 1901-1905 averaged 17.7% of total sales, since when they have steadily declined both absolutely and relatively.

Tariff protection also influenced the expansion during the period. In 1879, a tariff of 50 cents a short ton was imposed on bituminous coal. This was raised to 60 cents in 1880.

(26) Railway mileage in the Maritime Provinces increased from 1,577 in 1882 to 2,758 in 1903, and to 3,668 in 1916. Railway mileage in Quebec increased from 1,838 in 1882 to 3,420 in 1903 and to 4,733 in 1916.

(27) For the importance of the iron and steel industry see Table No. 6 of the Appendix.

(28) See Appendix - Table No. 27.

and reduced to 53 cents in 1897. In 1906, a three-way tariff was introduced, with a general rate of 53 cents per short ton, an intermediate of 45 cents, and a British preferential of 35 cents. Imports from the United States remained subject to the general rate. Competition from British coal in the market of the St. Lawrence valley was reduced, no doubt, by the protective policy inaugurated in 1879, but more important in this respect was the slackening of the old timber trade and the consequent decline in the tonnage available to carry British coal at distress cargo rates. Far more important than the tariff on coal in stimulating production was the deliberate encouragement of the iron and steel industry through the combination of bounties and tariffs.⁽²⁹⁾ As a result of the building up of the iron and steel industry in Nova Scotia the local market for coal became very important, especially after 1900.

In 1901, the controlling interest in the Dominion Iron & Steel Corporation was transferred from H.M. Whitney of Boston to James Ross, of Montreal, and his associates, another indication of the increasing influence of the economy of the rest of the Dominion upon the Maritime Provinces. In 1902 the Nova Scotia Steel & Coal Company decided to build new blast furnaces at Sydney Mines. In 1904 the Dominion Iron & Steel Company brought into operation its wire-rod mill at Sydney, and, in 1905, its steel-rail mill. An indication of the great expansion in the iron and steel industry during the period can be obtained from the figures of pig iron production.

(29) See Professor Mackintosh's Study, The Economic Background of Dominion-Provincial Relations, Chapter IV, s.8.

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TABLE I

Production of Pig Iron - 1889 to 1913

(long tons - 000's omitted)

	<u>Nova Scotia</u>	<u>All Canada</u>	<u>Nova Scotia percentage of all Canada.</u>
1889	19	23	83
1900	25	86	30
1905	233	469	50
1910	312	715	44
1913	428	1008	41

As with the production of coal, so also with the production of pig iron, the figures reached in 1913 have remained an all-time high. Since 1913, except for the war years, production of pig iron in Nova Scotia, both absolutely and as a percentage of output for all Canada, has fallen far below the 1913 level. (30)

The influence of the expansion in the coal mining and the iron and steel industries of Nova Scotia is very evident in the figures of population. The population of the county of Cape Breton increased 43% from 1891 to 1901, and 49% from 1901 to 1911. On the other hand the rural population actually declined from 1891 to 1901, and increased only 3% from 1901 to 1911. (31)

From 1901 to 1911, the increase in population for the three Maritime Provinces taken as a unit was 5% and from 1911 to 1921, 7%. These increases are small when set beside those for the Dominion as a whole (34% from 1901 to 1911, and 22% from 1911 to 1921), or when set beside those for the Central Provinces (18% from 1901 to 1911, and 17% from 1911 to 1921). However,

(30) For statistics for pig iron production see Appendix Table 6.

(31) From 1911 to 1921 the total increase was only 15.90% and the increase for rural population was .5%. These figures help to emphasize that most of the development in the coal mining and the iron and steel industries took place prior to the Great War.

the small increases that were made in the Maritime Provinces seem to have been of a healthy character and the shifts of population within the Maritime Provinces indicate that the economy was being more closely interwoven with the economy of the rest of the Dominion. From 1851 to 1881 the centre of population in Nova Scotia moved westwards approximately two miles; from 1881 to 1901, eastwards three miles; and from 1901 to 1921, eastwards ten miles. This eastward movement indicates the strong pull of the coal mining industry, the iron and steel industry, and the railway industry; and, through these, the pull of the St. Lawrence economy upon the economy of Nova Scotia. (32)

The expanding Canadian market, especially in the Prairie Provinces and British Columbia, made possible or accelerated the growth and development of a number of other manufactories in the Maritime Provinces. The textile industry, the boot and shoe industry, and certain branches of the woodenware industry, were stimulated to reach out not only to the market in Central Canada but also to the market in the rapidly expanding West. Indeed, in many instances, expansion was primarily in the western provinces, and secondarily in Ontario and Quebec. This was especially true of commodities on which transportation charges were high in relation to value, and on which competitive ocean rates gave the Maritime Provinces a relative advantage.

The rapid development of the Prairie Provinces during this period had far-reaching effects upon agriculture in the five eastern provinces, more especially Ontario and the Maritimes. Among the many settlers who moved from the Maritime Provinces and Ontario to the Prairie Provinces were a considerable number

(32) In New Brunswick, owing to the shape of the province, and owing also to the absence of such pronounced developments as the coal mining industry and the iron and steel industry in Nova Scotia, the shift in the centre of population is not nearly so indicative of the influence of the rest of the Dominion. New Brunswick's population was moving northwards. From 1851 to 1901 this northward drift amounted to thirteen miles, to which was added, by 1921, another seven miles.

of agriculturists. Many of these agriculturists were established farmers who sold or rented their farms, or in some cases abandoned them. This hastened the process of selecting the best land for agricultural purposes and of adopting the type of agriculture best suited to the particular soil within the limit set by market conditions.

Another important effect of the opening of the West was the temporary stimulus it gave to certain branches of agricultural production in Eastern Canada. The West needed supplies of certain foodstuffs until farming there had become sufficiently well developed and diversified to take care of the local demand. Potatoes were commonly shipped to the Prairie Provinces, and the Maritimes had a share of this trade. However, shipments of potatoes from the Maritimes to other parts of the Dominion went principally to Ontario and Quebec, either to supply absolute deficiencies in those provinces or to take the place of supplies shipped to the Prairie Provinces.

Fruit also, especially apples, was shipped to the West from eastern Canadian provinces, almost exclusively from Ontario and Nova Scotia, but the British market was the important outlet (33) for Nova Scotia apples even during this period.

British Columbia apples soon replaced the eastern product in the market of the Prairie Provinces; and, as the period wore on, despite declining production in Ontario, shipments of apples from Nova Scotia to Ontario and to the Prairie Provinces became less frequent, apart from exceptional years, and apart from exceptional circumstances, such as the shipping regulations during the War, which, for at least one season, limited cargo space that could be used for apples.

(33) Exports of Nova Scotia apples averaged 261,000 barrels for the five years 1896 to 1900; 377,000 barrels for the five years 1901 to 1905; 496,000 barrels for the five years 1906 to 1910; 786,000 barrels for the five years 1911 to 1915; and 932,000 barrels for the five years 1916 to 1920. See Appendix, Table No. 7.

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In this period, as in previous periods, production in the forest industries of the Maritime Provinces fluctuated as demands in the United Kingdom and in the eastern United States markets fluctuated. In general, there was a marked expansion and the data that are available indicate that the highest output from sawmills was reached in the years immediately preceding, or in the first years of, the Great War. The United Kingdom market was certainly more important than the United States market as an outlet for products of the sawmill, and was probably more important as an outlet for total forest products, despite a fairly rapid development in the manufacture of ground-wood pulp. As the War dragged on, production declined slightly, owing to shortage of labour and shipping difficulties; but prices were high, and for the period as a whole, including the years of the War, it seems fairly certain that there was excessive cutting of trees of larger dimensions, a circumstance which brought its nemesis during the 1920's and 1930's.

The fishing industry lost ground during this period, owing more to greater opportunities in other branches of endeavour than to adverse conditions in the fishing industry. In the census of 1901, the Nova Scotia returns showed 14,146 males engaged in fishing; in the census of 1911, 14,666; and in the census of 1921, 12,367. In New Brunswick, the number of males engaged in fishing increased from 2,515 in 1901 to 2,842 in 1911, and to 2,948 in 1921. In Prince Edward Island, the figures moved from 1,133 in 1901 to 1,352 in 1911, and to 1,180 (34) in 1921.

(34) The number of males engaged in fishing, as given in the census returns, is the number of those who consider their chief occupation to be fishing. In the Maritime Provinces, a great many people engage in fishing for part of the year, and during the rest of the year carry on what they consider to be their chief occupation. In the reports of the Department of Fisheries account is taken of these part-time fishermen, and therefore the number of fishermen reported is much higher than that shown in census returns. In 1885, according to the report of the Department of Fisheries, there were 29,905 persons in Nova Scotia engaged in fishing; by 1900, this figure had dropped to 25,212; by 1910, to 21,580; and by 1920, to 18,965. For New Brunswick, the figures show a different trend, rising from 10,185 in 1885 to 12,639 in 1900, to 16,158 in 1910, and to 16,705 in 1915, but falling by 1920 to 8,212.

The increase in the number of fishermen in New Brunswick by 1915 may be attributed in part to the growth of the Canadian market for fresh fish, in part to the growth of the fish-canning industry of that province, and in part to the export trade to the United States. The decline that set in during the War, and which, by 1920, had carried the figures to less than half of those shown for 1915, indicates the strong attraction during those years of other branches of work, and, in conjunction with the increase in the census returns from 1911 to 1921, a growing tendency towards specialization or a reduction in the number of part-time fishermen. In Nova Scotia, the decline is to be attributed to the passing away of some, and the decline of other occupations that had been combined with fishing, to better opportunities in other branches of endeavour, and to a tendency towards greater specialization.

The Canadian market for fresh fish grew rapidly after transportation subventions were granted in 1908, and the statistics show an obvious transference from the production of cured fish to the production of fresh fish. In 1913, the United States government admitted fresh and frozen fish free of duty, but as Canadian fishing vessels were not permitted to carry their catches direct from the fishing grounds to American ports or to clear from American ports for the fishing grounds, the removal of the duty did not greatly stimulate exports of fresh fish to the American market. In 1918, as a war-time measure, these shipping restrictions were removed, and for a few years there was a great expansion in the trade, but in 1921 the shipping privileges were cancelled, and in 1922 the tariff on fresh and frozen fish was reimposed.

Throughout this period, despite rising prices, there was a downward trend in the production of dried and pickled fish, a continuation of the trend that set in about the middle 1880's.

This upward trend in prices, accompanied by a downward trend in production, can be seen in the following tables: Table II showing the value per hundredweight of exports from Canada of dried ground fish, and Table III showing the production of dried cod in the Maritime Provinces.

TABLE II
(a)
Canada - Export Values of Dried Groundfish

<u>Average</u>	<u>Total Exports (per cwt.)</u>	<u>Exports to British West Indies (per cwt.)</u>
1896-1900	\$ 3.89	\$ 3.77
1901-1905	4.27	4.25
1906-1910	4.94	5.16
1911-1915	6.04	6.02
1916-1920	9.26	8.80
1921-1925	8.39	7.86
1926-1930	8.02	7.60
1931-1935	5.86	5.54

(a) Until 1919, dried codfish, haddock, hake, pollock, etc., were grouped together in the Canadian trade returns. Therefore, it is not possible, for this period, to separate exports of dried codfish from exports of other dried groundfish.

TABLE III
Maritime Provinces - Production of Dried Codfish

<u>Average</u>	<u>(Cwts.)</u>
1895-1899	666,511
1900-1904	692,999
1905-1909	543,626
1910-1914	447,592
1915-1919	350,803
1920-1924	349,418
1925-1929	348,616
1930-1934	177,323
Year 1935	166,368
Year 1936	130,799

The prices paid to fishermen may have lagged behind the values given for exports, but the diametrically opposite trends shown in these two tables make it clear that complex forces were at work moulding the fishing industry of the Maritime Provinces.

The changes in the Maritime economy that were so pronounced throughout the 1880's and early 1890's continued into the period now under discussion to as late as the outbreak of

the Great War. There was, however, a marked difference in the degree of ease or difficulty with which these changes were effected. There was a world-wide depression throughout the 1880's and early 1890's and development in Canada was slow and laborious. From the middle 1890's until the outbreak of the Great War, there was world-wide prosperity and exceptionally rapid development within Canada. The Great War brought with it feverish activity, when the ports of Saint John and Halifax were crowded with traffic, and when industries were producing to their utmost capacity. In this atmosphere of prosperity and feverish activity lurked many dangers: the Quebec market for coal was lost, freight rates were raised and the rise was relatively greater for the Maritimes than for other parts of the Dominion, the European economy was warped almost to breaking, and the Caribbean economy over-expanded in its race to capture sugar markets that the beet sugar producers had been forced to relinquish. Many of the consequent readjustments laid direct and heavy, and others laid indirect, but possibly none the less heavy, burdens upon the Maritime Provinces.

(7) The Period, 1920 to 1930:

The period 1920 to 1930, like the period 1880 to 1900, was one in which the Maritime Provinces had to make many economic readjustments. The period of rapid expansion for Canada had come to an end, and many industries in the Maritime Provinces, especially the iron and steel industry, were equipped to take care of demand arising out of expansion rather than demand arising out of a fairly well stabilized economy. The precarious position of the highly specialized sugar industry of the Caribbean region had its repercussion upon the demand for potatoes and fish; and the unstable situation in many European countries intensified competition in the fishing and lumber industries, first, because the European markets were not absorbing as much as in pre-war days and, second, because some European countries increased their output. Many of the small Maritime firms discovered that they had not the financial strength or the marketing facilities to enable them to compete in the western provinces with firms in Ontario and Quebec who were producing similar commodities.

The figures of population changes, and of the net value of production illustrate in a general way the difficulties of the Maritime region during the decade. From 1921 to 1931, the population of the Maritime Provinces increased only 0.9%, and both Prince Edward Island and Nova Scotia suffered decreases. In every province of Canada, except the Maritime Provinces, the high figures for net value of production for 1920 were exceeded during the latter years of the decade, but the nearest approach to the 1920 figures for the Maritime Provinces was in the year 1928, when the net value of production amounted to \$252,000,000 as against \$325,000,000 in 1920. *inflationary time followed by deflationary period*

During the decade the iron and steel industry experienced serious reverses, especially during the early years. The highest figure for the production of pig iron in Nova Scotia was

reached in 1913, when output amounted to 428,000 long tons. This figure was nearly, but not quite, reached during the War years and the nearest approach to it during the 1920's was in 1929, when output amounted to 310,000 long tons. For the Dominion, this branch of the industry stood just about still after 1913, but, for Nova Scotia, it slipped back both absolutely and relatively. For the years 1910 to 1913, Nova Scotia produced approximately 43% of the total pig iron produced in Canada.⁽³⁵⁾ For the years 1926 to 1930 Nova Scotia produced just slightly over 30%.

The difficulties of the industry were essentially those of readjustment to changed conditions in the Dominion. The industry had developed in an era of railway expansion and, before the War, a very important product was steel rails. But railway expansion slowed down after 1913, and the industry failed to find alternative markets that were sufficient to compensate for the smaller demand for steel rails and railway equipment. There was a growing demand for structural steel, and for lighter materials for such new industries as the motor industry. The steel industry in other parts of Canada, especially that centred about Hamilton, Ontario, took advantage of this new demand, but the Nova Scotia industry failed to make the necessary adjustments. This failure was no doubt due in part to the capital costs involved in changing over to completely new equipment, in part to the absence of a local market in the Maritime Provinces for the newer materials, and in part to adverse freight rates.⁽³⁶⁾

(35) See Appendix - Table No. 6.

(36) See Report Duncan Commission, 1926, p. 26.

A large part of the output of the coal mines is consumed by the iron and steel industry, and, with the iron and steel industry depressed, the coal mining industry had its share of difficulties. In addition to the smaller demand from the iron and steel industry, the Quebec market had been lost during the War, partly because the ships that had been used to transport the coal to the Quebec market were commandeered for war purposes, partly because the cost of mining coal in Nova Scotia rose much more rapidly than the cost of mining coal in the United States, and partly because the Maritime market was able to absorb a much greater quantity than in the pre-war days. After the post-war boom had broken, it became evident that the Quebec market would have to be regained. By the late 1920's, this had been accomplished and sales to Quebec were in excess of pre-war years, but, owing to depressed conditions in the Maritime market, the production of coal did not reach the pre-war level. Production of coal in Nova Scotia from 1911 to 1915 averaged 7,520,000 short tons, and for the years 1926 to 1930, 6,774,000 short tons.

In the difficult years of the early and middle 1920's a number of Maritime manufacturers were forced out of business, because of their inability to extend sufficient credit to carry their business in Western Canada through depression years. Business thus lost rarely went to other Maritime firms, but was usually captured by central Canadian firms, because they were already in the field, and, as a rule, were larger, financially stronger and more advantageously situated to supply the western market. Technical changes in industry were also important, as, for example, the change from wooden to steel railway cars, which closed the car manufactory at Amherst, Nova Scotia, where, it will be recalled, the first railway cars in Canada were produced.

The opening of the Panama Canal benefited a few Maritime firms selling in the Prairie Provinces and British Columbia, because water competition forced down certain railway rates, but this benefit was more than counterbalanced by the

stiffer competition to which the lumber industry of the Maritime Provinces was subjected. Pacific Coast lumber from the States of Washington and Oregon, and from the province of British Columbia, was enabled to compete more directly and effectively with Atlantic Coast lumber in the eastern American market, and to a smaller extent in the United Kingdom market. Indeed, British Columbia lumber competed with Maritime Provinces lumber even in the Maritime Provinces, and also with central Canadian lumber as far west as Hamilton, Ontario.

A large part of the output of lumber in the Maritime Provinces had gone to the United Kingdom market, but the building industry in the United Kingdom was severely depressed during most of the 1920's. Throughout the 1920's, Nova Scotia continued to send more to the United Kingdom than to the United States but, by 1925, New Brunswick's largest customer was the United States. The lumber industry of the Maritime Provinces is fully a century and a half old and, with the heavy cutting that took place during the first two decades of the present century, it is not surprising that during the 1920's the industry found difficulty in meeting competition from the virgin forests of the Pacific Coast.

The post-war decade also witnessed a considerable shift from lumber to pulp and paper. The manufacture of paper was begun in New Brunswick in 1923 and in Nova Scotia in 1930. The transition was in part facilitated by the early post-war depression, which compelled many lumber companies to dispose of their timber limits to the newer pulp and paper interests. The pulp and paper industry, however, did not always, or at once, take the place of the lumber industry, with the result

that many areas dependent on forest production languished while
(37)
others flourished.

The apple industry of Nova Scotia was even more dependent upon the United Kingdom market than was the lumber industry. The Nova Scotia apple was well received in the United Kingdom market because it resembled in appearance and flavour the English apple. The cost of production was relatively low, there was a short rail haul to shipping ports, and there was an abundance of cargo space in which to carry the apples from Nova Scotia to the United Kingdom. Orchards were young and, prior to the 1920's, the control of diseases and pests was not difficult. Because the apple industry had been expanding, it had attracted capable and energetic operators and dealers. In 1920, the North Atlantic Shipping Conference fixed a rate of \$2.50 per barrel for carrying apples from Halifax to United Kingdom ports, and gave a substantial differential in favour of New York. Growers and shippers in the Valley chartered tramp steamers, which were loaded at Port Williams, virtually in the heart of the apple-growing district, and forced a reduction of the rate from \$2.50 to \$1.25 per barrel, with the differential in favour of Halifax. The possibilities of chartering tramp steamers and loading them

(37) In New Brunswick, the population of Dalhousie increased from 1,958 in 1921 to 3,974 in 1931; the population of Edmundston increased from 4,035 in 1921 to 6,430 in 1931; and the population of Campbellton increased from 5,570 in 1921 to 6,505 in 1931. These increases may be attributed primarily to the development of the pulp and paper industry, and secondarily to a northward and westward movement of the centre of the lumber industry. On the other hand, the declining lumber industry must be charged with the decrease of the population of Chatham from 4,506 in 1921 to 4,017 in 1931, and of the population of Newcastle from 3,507 in 1921 to 3,383 in 1931. In Bathurst, the population remained stationary (3,327 in 1921 and 3,300 in 1931), and here it may be said that the effects of the decline of the lumber industry were just about offset by the effects of the rise of the pulp and paper industry.

at ports so near the apple-producing area has helped since that date to keep down steamship and rail rates, and to maintain the differential in ocean rates in favour of Halifax.

During the 1920's some of the early advantages began to disappear. Orchards throughout the Valley were becoming almost continuous, and the difficulty, and, consequently, the cost of controlling diseases and pests increased rapidly. The long post-war depression in the United Kingdom, coupled with keener competition from other sources of supply, made the marketing of apples at remunerative prices increasingly difficult. The chief competitor was the United States and, although only a very small percentage of the United States crop was exported, the volume was sufficiently large - much greater than the volume from Nova Scotia - and the quality sufficiently high to make serious inroads into the British market. The apple producers in the eastern United States, who were the chief competitors of the Nova Scotia producers, had been forced to improve the quality of their product, because of competition in the home market with citrus fruits and with the highly-coloured and well-packed apple from the Pacific Coast. The quality of the Nova Scotia apple had not been kept up to a comparable standard, because most of the crop was marketed in the United Kingdom or in other European countries where competition with citrus fruits and with better quality and better packed apples had not been nearly so keen as it had been in the eastern United States.

Prior to the War the United Kingdom was a very small consumer of citrus fruits, but, after the War, and especially with the growth of the tourist trade from the United States, the use of citrus fruits began to increase. Australia, like the Pacific Coast of North America, was producing a highly-coloured apple with good keeping qualities, and during the 1920's began to market these apples in the United Kingdom. Because of the long ocean voyage and the passage through the tropics, the apples had to be well packed, just as the apples from the Pacific Coast, because of the long rail haul, had to be well

packed. Finally, the lower freight rates made possible by the opening of the Panama Canal enabled British Columbia to enter the United Kingdom market. By the middle 1920's, with all these forces converging upon the United Kingdom market, the Nova Scotia producers were finding it difficult to obtain remunerative prices for their product. By 1930, conditions had become sufficiently critical to cause the Provincial Government to have the industry investigated by a Royal Commission.

That these difficulties developed during the 1920's is indicative of the sensitiveness of the Maritime economy to changing conditions the world over, and it ought to be said that the apple producers of Nova Scotia made long and rapid strides in bringing their industry to a high standard of efficiency. Exports of apples from Nova Scotia averaged 1,286,172 barrels for the years 1921 to 1926, and 1,037,081 barrels for the years 1928 to 1932; and amounted to 2,267,592 barrels in 1933, 1,669,162 barrels in 1934, and 1,375,182 barrels in 1935. In addition to maintaining exports at a high level considerable progress has been made in producing by-products, such as dried apples, canned apples, and apple cider.

Economic forces fully as complex as those that affected the apple industry of Nova Scotia have placed the fishing industry of the Maritime Provinces under increasingly heavy pressure from the early 1920's to the present. During the War, the production of beet sugar declined, and the production of cane sugar, stimulated by the exceptionally high prices, increased. The sugar islands of the Caribbean, particularly Cuba, experienced a period of unparalleled prosperity. As the price of sugar rose, more sugar and less of other foodstuffs was produced, and, consequently, more foodstuffs were imported. One of the staple protein foods in southern countries is dried fish, especially dried cod. Therefore, the demand for dried cod and related species increased with the increasing buying power of these markets. A smaller production

of dried fish during the War was another factor in raising prices. Following the War, prices held well for a time and then began to fall. The decline in the price of sugar was persistent after 1923, and the decline in the price of fish set in at a still earlier date. It took a few years after Versailles for the beet sugar producers in Europe to regain the ground lost during the War, but progress was especially rapid after 1925. The European markets for dried fish, principally Portugal, Spain, Italy, and Greece, were slow in recovering their buying power. Norway, a large producer of dried fish, had found an outlet for its products chiefly in European countries, but during the 1920's was forced to turn its attention more than formerly to the Caribbean and South American markets, and as early as 1920 subsidized the export of dried fish. Newfoundland had for years disposed of much of its catch in European markets, but, as the 1920's wore on, Newfoundland, too, became a stronger competitor in the Caribbean and South American markets. Before the War, Iceland had produced dried fish, averaging perhaps 250,000 quintals a year; but, after the War, a number of steam vessels built as minesweepers were purchased, converted into trawlers, and used in the Iceland fishery. By the late 1920's, Iceland's production had risen to nearly one and a half million quintals. The United Kingdom also became a strong competitor as her production of dried fish, which was chiefly a by-product of the fresh fish industry, increased.

With this pressure from competing areas, coupled with conditions in the sugar industry that were growing steadily worse, prices of fish in export markets steadily declined. This meant a considerable transference from production for export to production for domestic consumption. As a consequence, prices on the domestic market were also forced down. In 1928, the Dominion Government appointed a Royal Commission to investigate the fishing industry, in all branches of which, even by this early date, conditions had become extremely acute.

The situation in the sugar industry was important also to the potato growers of the Maritime Provinces, for, as the Caribbean region became increasingly dependent upon outside sources of supply for its foodstuffs, Canada, which in this case means the Maritime Provinces, sold more potatoes to both the British West Indies and Cuba. During the early 1920's, Cuba was Canada's largest single export market for potatoes, and the United States came second; during the late 1920's, the United States took more than all other export markets combined, but some of these exports to the United States seem to have been destined ultimately for the Caribbean market. (38)

Owing to the relatively low elasticity of demand for potatoes, and to the vagaries of crop yields, the fortunes of the potato industry are normally subject to wide fluctuations, and the conditions of the sugar market are not very clearly reflected in the price of exports of Canadian potatoes during most of the 1920's. However, from 1928 onwards, the potato industry was under noticeably heavy pressure. In 1927, Cuba decided upon a policy of greater self-sufficiency, and, as a step in this direction, raised its tariff on potatoes. In the following year, as an additional encouragement to the production of potatoes in Cuba, certain varieties of seed stock were admitted free of duty.

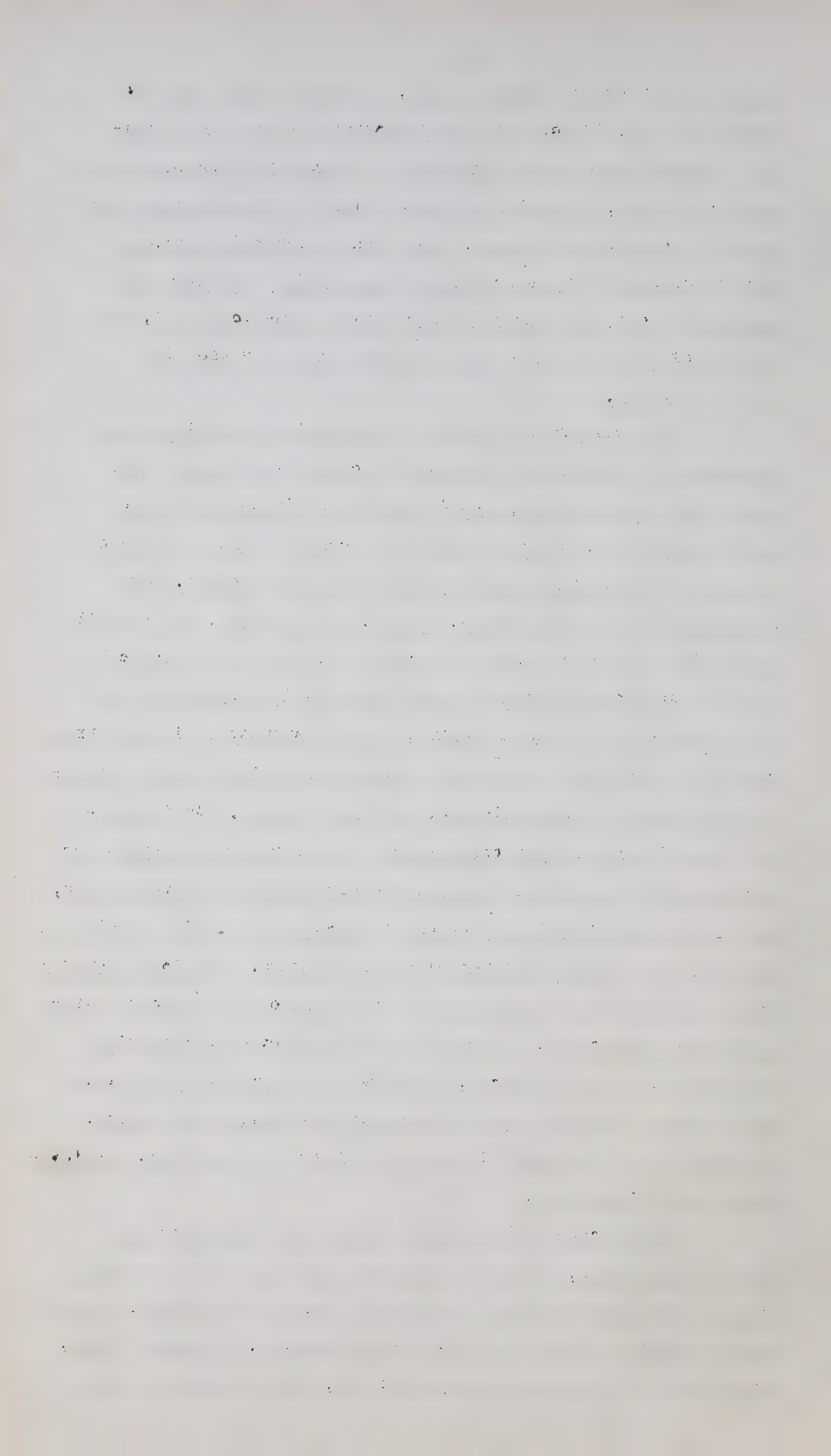
The production of Irish potatoes in southern countries requires frequent changes of seed. The Maritime Provinces, especially Prince Edward Island, made very rapid progress during the 1920's in producing high-grade, relatively disease-free, seed stock. These two circumstances have been principally responsible for keeping Maritime potatoes in export markets despite depressed conditions generally and despite rising tariffs.

The potato industry of the Maritime Provinces seems to be on a very efficient basis. There is not excessive specialization, but the scale of production, in both New
(38) See Appendix - Table No. 8.

Brunswick and Prince Edward Island, is sufficiently large to afford most of, if not all, the economies of large-scale output. Although the potato industry of the Maritime Provinces has many advantages, including soil and climate, it must depend very largely upon outside markets. This means overcoming foreign tariffs as well as meeting foreign competition. In 1928, as indicated above, the period of high prices came to an end, but it was not until 1930 and later that the industry took its severe drubbing.

Agriculture in general in the Maritime Provinces was experiencing difficulties throughout most of the 1920's. The shifts that were taking place in the forest industries robbed some localities of a nearby market for certain products, and of a source of additional income during the winter months. The increasing use of automobiles, trucks, and tractors, was steadily decreasing the local market for horses and hay. Meat from other parts of the Dominion made further progress in supplanting the local product in the local market, and the standstill in most urban centres did not make it possible for agriculturists to turn readily to other forms of production for the local market. An increase in the tourist trade helped considerably by enlarging the market for such products as poultry and eggs and fresh fruits and vegetables, and by providing additional income to those who were in a position and willing to supply accommodation for lodgers. The local governments increased their activities in an endeavour to promote better methods of production. A great deal was achieved in improving the quality of many products, in raising the level of productivity in many branches, and in increasing the output of a number of commodities, but there is no simple index in which these achievements can be expressed.

The decade of the 1920's started out badly for the Maritime Provinces, as it did for most other parts of the world, with all the major branches of industry severely depressed. Elsewhere in North America, and, more significantly, in Canada, there soon came a fair amount of recovery; and, before the end of the



decade, a period of exceptional prosperity. In the Maritime Provinces, recovery from the acute post-war depression was long deferred, and the period of prosperity experienced in most other parts of the Dominion has not yet arrived. The slow recovery of the coal mining industry in Nova Scotia and of the forest industries in New Brunswick impaired governmental revenues from these sources. With other branches of industry also depressed, it was not easy to obtain additional revenue, and government expenditure in each of the three Provinces was steadily increasing. The highways of the Maritime Provinces were not comparable with those of the neighbouring states of the American Union or with those of the central provinces of the Dominion; and educational requirements had been neglected. Governments were being called upon to remedy these deficiencies, and, at the same time, to extend their work in promoting or stimulating local industries, and it was also clear that additional expenditures for social services would be required.

Transportation has always been a very important factor in the economy of the Maritime Provinces. When facilities were plentiful and cheap, the Maritimes flourished; when they became scarce and dear, the Maritimes languished. The increase in railway rates after 1912 placed a disproportionately heavy burden upon Maritime merchants and producers selling in the Canadian market; ⁽³⁹⁾ and the difficulty of obtaining frequent and expeditious sailings from Maritime ports to a large range of markets was hampering Maritime traders and producers who were selling abroad.

The difficulties that the Maritime Provinces were facing were very real, and political discontent eventually

(39) Most of the increases in railway freight rates that weighed disproportionately heavily upon the Maritime Provinces were the "horizontal increases" of the War period. The changes made in 1912 and 1913 were also important. The comparisons of rates submitted to the Duncan Commission were based, for the most part, on changes that had taken place between 1912 and 1926, but a few comparisons went back to 1907 or 1908, and a few took 1916 as the base year. However, most of the discussion dealing with the adverse effects of railway freight rate increases centres upon the war-time "horizontal increases".

led to the inquiry by the "Duncan Commission" in 1926. The Commission recommended, among other things, increased federal subsidies to the governments of the Maritime Provinces, a reduction in freight rates to place the region in the same relative position vis-a-vis the rest of Canada that it had been in prior to 1913, and special subventions in aid of the coal industry. Partly as a result of the implementing of these recommendations, partly as a result of fundamental readjustments that had been made, partly as a result of prosperous conditions elsewhere, the Maritime Provinces experienced a fair measure of recovery towards the end of the decade. But the depression struck just when prospects were beginning to brighten.

8. Depression and Recovery - 1930 to the Present.

From 1929 to 1933 the Maritime Provinces sank with the rest of the Dominion into the trough of the depression, and from 1933 to 1937 laboriously fought their way back to a level of prosperity fairly comparable with that enjoyed in 1929. It is not intended here to discuss the general features of the depression, which have been discussed at length in Professor Mackintosh's study for the Commission, The Economic Background of Dominion-Provincial Relations, but rather to discuss the particular trends in the Maritime Provinces and the problems in that region to which the depression gave rise.

The figures of production in the iron and steel industry and the coal mining industry in Nova Scotia show clearly the severity of the depression to 1932, the low year for these industries, and the considerable measure of recovery that had taken place by 1936.

Table IV

(40)

Production of Iron and Steel
Nova Scotia
(thousands of tons)

	<u>Pig Iron</u>	<u>Steel Ingots</u>	<u>Steel Rails</u>	<u>Steel Wire</u>
1929	310	407	141	29
1932	30	68	-	9
1936	257	379	66	35

The coal mining industry of Nova Scotia as has been noted above, depends to a very large extent upon the local iron and steel industry. The depression in iron and steel production was reflected in diminished coal production. In the production of coal, as in the production of iron and steel, the low point was in 1932. After this, production rose steadily to 1937 when it was within half a million tons of the peak year 1913.

(40) See Tables 6 and 11 for fuller statistical details.

Production is shown in the table below.

Table V

PRODUCTION OF COAL (a)
(In short tons)

(000's omitted)

<u>Year</u>	<u>Nova Scotia</u>
1927	7,071
1928	6,743
1929	7,056
1930	6,252
1931	4,955
1932	4,084
1933	4,557
1934	6,341
1935	5,821
1936	6,649
1937	7,227

(a) For production in New Brunswick and for more complete statistics for Nova Scotia, see tables in Appendix.

Sales in the Quebec market dropped off sharply during the early years of the period, but the industry successfully maintained its relative position there and substantially bettered it during the later years. In 1928, Nova Scotia coal constituted 61.7% of the bituminous coal used in Quebec; in 1936, 69.2%; and in 1935, the figures had been as high as 73.6%. By 1936, the industry had begun a noteworthy invasion of the Ontario market. In 1928 only 0.6% of the bituminous coal used in Ontario was Nova Scotian, but in 1936, the figure had risen to 11.2%.⁽⁴¹⁾

That the industry did not suffer more, that it has recovered so well, and that it has strengthened its hold on the Central Canadian market, is due in no small degree to the policy of the Dominion government. In 1927 the Dominion provided for bonuses for coal used in gas and coking plants; in 1928 subventions were provided for transportation of coal to Central Canadian points; in 1930 bonuses were provided for coal used in the production of coke for the manufacture of iron and steel; and in 1931 the tariff

(41) See coal tables in Appendix.

(42)

on coal was increased to 75 cents a ton.

These various aids to the production of coal in the Maritime Provinces entailed considerable and increasing expenditures by the Dominion Treasury; and the following is a statement of total disbursements by the federal government under the several measures mentioned above in so far as these disbursements were made for coal originating in the Maritime

(43)

Provinces.

<u>Year</u>	<u>\$</u>
1928	65,809
1929	205,600
1930	356,201
1931	303,436
1932	778,514
1933	1,480,795
1934	2,074,643
1935	1,891,129
1936	2,068,804
1937	2,307,671

(42) The Canadian tariff was raised to 75 cents per short ton in 1931. In 1928, attempts were made to enlarge the market for Maritime coal by payment by the Dominion government of the difference between \$3.00 and the actual cost of hauling coal all rail from Nova Scotia to the province of Quebec, and the difference between \$2.10 and the actual cost of hauling coal all rail from New Brunswick to the province of Quebec; and by the payment of subventions on the movement by rail of coal landed at St. Lawrence ports by water and trans-shipped inland, such subventions not to exceed 75 cents per ton. In 1931 and subsequently, these subventions were increased and extended. The principles followed were, in brief; that all rail shipments from the Maritime Provinces to Quebec and Ontario should be subsidized to the extent of from \$1.50 to \$2.00 per ton, that is to say, that the maximum amount of subsidy was fixed at \$1.50 per ton at certain times and at \$2.00 per ton at other times according as government policy changed; that coal water-borne to St. Lawrence ports and trans-shipped by rail should be subsidized to the extent of from 75 cents to \$1.50 per ton; and that Maritime coal to be used by railways should be subsidized to the extent of the difference in costs between imported coal and coal from the Maritime Provinces, the limit of such assistance being fixed at \$2.00, raised later to \$2.50, and still later lowered to \$2.00 per ton. In 1930, a subsidy of 49½ cents per ton was granted on Canadian coal used in the production of coke for use in iron and steel manufacture. This affected Nova Scotia coal almost exclusively. The rate of 49½ cents was fixed as the equivalent of the drawback granted on imported coal that was used for similar purposes. Furthermore, the rate reductions applicable under the Maritime Freight Rates Act of 1927 played some part in all rail movements.

(43) The figures for the various items that make up the totals shown in this table are for the calendar year, except those for bounties paid on Canadian coal used in the production of coke that is to be used in the production of iron and steel, which figures are for the fiscal year ending March 31 of the year following that shown in the date column.

During the 1920's the production of lumber in the Maritime Provinces never reached so high a figure as it had during the years immediately preceding the Great War, and after 1926, despite the general trade recovery, the trend was definitely downwards. The depression was to drive production in these industries to the lowest point in the present century. Demand in the American market dropped sharply with the depression, and the American tariff of 1930 placed new obstacles in the way of Maritime forest products other than pulp and paper. Demand also dropped sharply in the United Kingdom market, and the depreciation of the pound sterling in terms of the dollar from 1931 to 1933 had much the same effect as a tariff. Two factors, however, helped to revive the industry after 1933; (1) the Imperial preferences of 1932 which were confirmed and extended by the Ottawa agreements; and (2) the depreciation of the Canadian dollar, following the devaluation of the United States dollar, which enabled Maritime exporters to take full advantage of the preferential tariffs in the United Kingdom market. For a time the Canadian dollar was considerably depreciated in terms of the pound sterling, which temporarily gave a further stimulus to exports. Added to these factors, was the increased demand in the United Kingdom for forest products, owing to the revival in the construction industry. As a result exports of forest products rose steadily from 1934 to 1937, but even by that date they had not regained the relatively low point of 1930. In contrast to the diminished output of lumber and other sawmill products was the sustained production of pulp and paper. But discussion of the pulp and paper industry will be reserved for a later section.

The drastic decline in the lumber industry and the relative importance of the United States and United Kingdom markets, can be seen in the following table.

EXPORTS OF SAWN LUMBER

(000's omitted)

Year	NOVA SCOTIA				NEW BRUNSWICK			
	Total Quan. (M ft)	Total Value \$	To United Kingdom \$	To United States \$	Total Quan. (M ft)	Total Value \$	To United Kingdom \$	To United States \$
1925	137	3,567	1,564	1,338	319	8,967	2,321	5,944
1926	131	3,340	1,688	1,177	326	8,632	2,342	5,669
1927	90	2,313	1,036	915	253	6,920	1,398	4,928
1928	110	2,747	1,761	647	254	6,841	1,971	4,473
1929	111	2,829	1,505	890	244	4,623	1,335	3,112
1930	114	2,921	1,786	759	152	4,364	1,135	2,934
1931	78	2,040	1,178	448	103	2,778	751	1,904
1932	48	1,092	474	372	75	1,720	393	1,210
1933	56	1,003	721	102	69	1,288	657	580
1934	103	1,829	1,581	106	160	2,821	1,964	699
1935	156	2,834	2,474	121	170	3,413	2,587	484
1936	137	2,315	2,032	216	123	2,565	1,638	835
1937	163	3,161	2,682	324	183	3,975	2,347	1,506

Agriculture in the Maritime Provinces was extremely vulnerable at three points: (1) the potato industry, (2) the apple industry, and (3) the silver fox industry.

As explained earlier in this summary, potato growers in the Maritime Provinces looked to the United States and to the Caribbean region as their principal outlets. Cuba, a very important customer, was being extremely hard pressed owing to the difficulties of the sugar industry; and, in 1930, the United States increased its tariffs on Canadian potatoes. (44)

(44) From the abrogation of the Reciprocity Treaty until 1913, the American tariff varied from 15 cents to 25 cents per bushel. The Underwood tariff of 1913 admitted potatoes free, with provisions for a countervailing duty of 10% ad valorem. In 1921, the Emergency tariff reimposed the old rate of 25 cents per bushel, and the Fordney-McCumber tariff in the following year raised the rate to 50 cents per one hundred pounds. In 1930, the rate was again raised, this time to 75 cents per one hundred pounds.

The reciprocity trade agreement between Canada and the United States, 1935, introduced a distinction for the first time in American tariff history between table and seed stock. Under this agreement, seed potatoes from Canada are admitted into the United States at 60 cents per one hundred pounds from the first of December to the last of February, and at 45 cents per one hundred pounds from the first of March to the end of November. These rates are applicable within a quota limit of 750,000 bushels annually; and imports of table stock, or of seed stock in excess of the quota limit, will pay the general rate of 75 cents per one hundred pounds. The seed potato provisions of the Canada-United States Trade Agreement, 1935, came into effect January 1, 1936, but on December 1, 1935, the United States Potato Act came into operation. The Potato Act has

(Footnote (44) continued on following page...

(Footnote (44) continued)

as it purpose the balancing of supply and demand at a price level that is considered adequate to the needs of the American producer. To accomplish this, domestic producers are allotted sales quotas, and an internal revenue tax of $\frac{3}{4}$ of 1 cent per pound is imposed on all sales in excess of the quota. To prevent the efforts of the government from being frustrated by imports, sales quotas are also allotted to dependencies of the United States and to foreign countries. All imports in excess of the quota are subject to the regular tariff charges, and, in addition, to a tax equivalent to the internal revenue tax of $\frac{3}{4}$ of 1 cent per pound. Canada's quota under this Act is approximately 2,600,000 bushels, and on all sales to the United States in excess of this amount, including the quota of 750,000 bushels for seed potatoes, there must be paid $\frac{3}{4}$ of 1 cent per pound, as well as the duty of 75 cents per one hundred pounds, or an amount equivalent to a tariff of \$1.50 per one hundred pounds.

Under the Canada-United States Trade Agreement, 1938, which came into effect January 1, 1939, the tariff on seed potatoes was lowered to $37\frac{1}{2}\%$ per 100 pounds from March 1 to November 30, and the former rate of 60% per 100 pounds for the remainder of the year was left unchanged. The quota of 750,000 bushels was increased to 1,500,000 bushels. The duty on table stock was placed at the same rates as the duty on seed stock, with a quota limit of 1,000,000 bushels. For both seed and table stock in excess of the quota limits the rate of duty is to be 75% per 100 pounds. Provision is made for increasing the quota on table stock in years when American production falls below 350,000,000 bushels, and another provision is made for a reduction of the 60% rate on seed stock to the $37\frac{1}{2}\%$ rate "if and when the United States is no longer obligated to accord to such potatoes produced in the Republic of Cuba a preferential reduction in the rate of duty in excess of 20 per centum".

Cuba has been overwhelmed by the difficulties of the sugar trade, and in her efforts to encourage diversified production at home has imposed tariffs that make the American tariffs look diminutive. From 1904 until 1927, the Cuban tariff was 65 cents on every one hundred kilogrammes, or 220.46 pounds. In 1927, there was imposed a seasonal tariff of \$2.00 per one hundred kilos from December first to May thirty-first, and of \$1.00 per one hundred kilos for the rest of the year. In 1929, the rates were increased to \$5.00 per one hundred kilos from November first to June thirtieth, and to \$1.50 per one hundred kilos for the rest of the year. In 1931, the rate was set at \$5.00 all the year round. In 1934, the seasonal tariff was again adopted, with rates of \$5.00 per one hundred kilos from November first to June thirtieth, and \$4.00 per one hundred kilos for the rest of the year. From 1903 until 1934, American exporters to Cuba had the advantage over Canadian shippers of a 20% preference. By an agreement of 1934 between Cuba and the United States, the American exporters were given a preference of 50% on the \$4.00 rate and retained the 20% preference on the \$5.00 rate. In 1928, a decree admitted certain varieties of seed potatoes free of duty from February first to March fifteenth and from September fifteenth to November thirtieth; varieties that were not specified and all varieties imported during the rest of the year were

(Footnote (44) continued on following page...

(Footnote (44) continued)

subject to the regular tariff schedules. In 1929, the number of varieties of seed stock admitted free was reduced from fourteen to seven, and the exemption period was set at September fifteenth to February fifteenth. In 1931, the number of varieties was again reduced, this time to three, and the exemption period was extended another month to March fifteenth. In 1934, the period during which such potatoes could enter free of duty was shortened to run from September first to January thirty-first, but the number of varieties was increased to four, and later, to five.

In the Cuban tariff there are minimum and maximum rates. The maximum rates are double the minimum rates. The rates that have been quoted, and which were applicable to Canada until March 10, 1936, are the minimum rates. By a law of March 15, 1935, it was provided that the minimum rates should apply to only those countries that purchased at least 50% as much from Cuba as they sold to Cuba, that the minimum rates plus a surcharge of 25% should apply to all countries whose purchases from Cuba were between 25% and 50% of their sales to Cuba, and that the maximum rates should apply to those countries whose purchases were less than 25% of their sales to Cuba. From March 10, 1936, until April 11, 1938, imports of Canadian potatoes were subject to the maximum rates, that is, \$8.00 per one hundred kilogrammes from July first to October thirty-first, and \$10.00 for the rest of the year. On April 11, 1938, Canada again qualified for the minimum tariff rates.

Canada's Imperial preferences on sugar are responsible, in part, for Canada's imports from Cuba being so much less than Canada's exports to Cuba that the maximum Cuban tariff became effective against Canadian potatoes during the years 1936-1938. These preferences, which were considerably increased by the Canada-West Indies Trade Agreement, 1925, are specific. The low price to which sugar fell during the depression made the preferences extremely effective, and their effectiveness was reinforced by the application of dumping duties to Cuban sugar. The result of this combination of circumstances was that imports of sugar from Cuba fell to very low levels, and, as sugar is the principal import from Cuba, there was a drastic decline in the value of total imports from that country.

The results were very low prices, a small export trade, reduced output, and heavy pressure upon the Ontario and Quebec potato growers as the Maritime Provinces fought for a larger share of the Canadian market. Some relief was found in the reduced American tariffs brought about through the Canadian-American Trade Agreement, and further relief was found in Cuba's policy of admitting certain varieties of seed potatoes free of duty, although taxing very heavily imports of potatoes for table use. Private dealers and government agencies have sought new outlets, and, recently, heavy shipments of seed potatoes have been made to the Argentine. But, as the countries constituting the principal markets continue their policies of endeavouring to replace imported products with domestically-produced products the industry is still hard pressed.

The apple industry, as already explained, found its principal market in the United Kingdom. The Import Duties Act of the United Kingdom, 1932, provided a preference of 10% to all Empire apples, and by the Ottawa Agreements this ad valorem preference was changed to a specific preference of 4s. 6d. per hundredweight. This preference, together with improved orchard practices, and improved methods of packing, grading, and marketing, has been of very great assistance to the apple industry of Nova Scotia during the difficult years of the depression. Under the United Kingdom-United States Trade Agreement, 1938, the preference of 4s. 6d. per hundredweight was reduced to 3s. per hundredweight, effective during the period August 16 to April 15 in each year.

The silver fox industry, providing a luxury commodity, suffered heavily in the price decline. In 1928, the average price received for Canadian silver fox pelts was slightly over \$100, by 1932 the average price had fallen to only slightly over \$28, and by 1936 the average price had risen to only slightly over \$30. The price of breeding stock dropped from slightly over \$200 on the average in 1928 to less than \$50 in 1932, and stood at approximately \$54 in 1936. The fox industry is an integral part of agriculture in Prince Edward Island and is also important to the

agricultural industry of New Brunswick and Nova Scotia.

The decline in the prices of potatoes and foxes has been particularly disastrous to Prince Edward Island, which has specialized in the production of both. Agricultural income in the province dropped from \$9.8 million in 1927 to \$2.3 million in 1932, a decline exceeded only by the three Prairie Provinces. And from this collapse agriculture on the Island has only partially recovered. In recovering it has lagged behind every other province except Saskatchewan and Alberta. ⁽⁴⁵⁾

The severe decline in the price of grains brought with it a corresponding decline in the price of feed. The Maritime Provinces constitute a deficiency area in a number of agricultural products, including feed, and shifts in the agriculture of the West diminished the advantage to the Maritimes of purchasing feed and producing meat, and increased the advantage of purchasing meat. In 1928, the beef shipped into the Maritime Provinces from other provinces in Canada amounted to 5,048,000 pounds, in 1935 it amounted to 20,520,000 pounds. In 1928, the amount of pork shipped into the Maritimes from other provinces in Canada amounted to 2,428,000 pounds, and in 1935 it amounted to ⁽⁴⁶⁾ 6,194,000 pounds.

Increased production in the dairying industry, in poultry and eggs, and in a number of smaller items has helped many farmers to escape some of the pressure on the main branches of the industry. There seems also to have been a tendency towards an increase in subsistence farming, reflecting depressed conditions generally and decreased mobility of the population.

The difficulties of the fishing industry during the 1920's were intensified during the depression. The average value per hundredweight of dried cod exported from Canada dropped from \$8.71 for the years 1921-5 to \$8.25 for the years 1926-30, to \$6.07 for the years 1931-5, to \$5.12 for 1936, and rose slightly to \$5.20 for 1937. The production of dried cod in Nova Scotia dropped from 300,000 cwt. in 1925 or the high figure of 408,000

(45) See National Income Figures, Professor Mackintosh's Study op.cit., Table 13.

(46) See Tables Nos. 14 and 15 of the Appendix.

cwt. in 1926, to 117,000 cwt. in 1936. This decline was persistent, with only the occasional year showing a slight advance over the preceding year. The pickled fish trade, too was depressed. The index of the price of pickled mackerel fell from 92.3 (with 1926 as equal to 100) in 1929 to 24.3 in 1936. An effort to transfer activities from the production of dried and pickled fish to other branches of the industry had the effect of depressing prices in the fresh fish trade. (47)

The lobster fishery proved to be one branch of the industry capable of some expansion, and the production of lobsters was stepped up very considerably. Live lobsters enter the United States free of duty, and the volume of exports more than doubled between 1929 and 1933. A large part of the output of canned lobsters is disposed of in the United

(47) NOVA SCOTIA - PRODUCTION OF COD FISH				
Year	Fresh	Fresh	Dried	Green-
	(cwt.)	Filletts	(cwt.)	salted
		(cwt.)		(cwt.)
1925	97,866	1,616	300,932	88,826
1926	144,242	2,043	408,023	86,736
1927	100,691	11,195	274,103	78,114
1928	88,723	21,104	285,926	81,246
1929	79,057	15,082	250,890	77,469
1930	82,872	26,298	184,409	76,099
1931	62,907	21,212	123,885	84,275
1932	67,612	23,052	128,472	61,497
1933	44,860	46,528	115,821	79,308
1934	43,553	46,079	132,635	94,366
1935	40,717	51,704	127,406	54,704
1936	48,284	81,583	117,126	87,065

Kingdom market, and this branch of the industry benefited from the Imperial preference granted by the United Kingdom through the Import Duties Act of 1932. There was an increase in the exports of canned lobsters, but the increase was not so marked and not so well sustained as was the increase in the export of live lobsters.⁽⁴⁸⁾

The effect of these increased exports was reflected in lower prices. The average price per unit for live lobsters exported from Canada fell more than 50% from 1928 to 1934, and in 1937 was still 30% below the 1928 level. The average price per unit for exports of canned lobsters from Canada fell 45% from 1928 to 1934, and in 1937, despite the relatively small shipments, was still 20% below the 1928 level.

The greatly reduced returns from primary operations in the fishing industry has had to be divided among a larger number of workers. The average number of persons engaged in primary fishing operations in the Maritime Provinces, according to Fisheries Statistics, rose from 28,222 in 1925,

(48)

CANADA - EXPORTS OF LOBSTERS
(000's omitted)

Year	<u>Fresh Lobsters</u>		<u>Canned Lobsters</u>	
	(cwt.)	\$	(cwt.)	\$
1925	46	1,270	46	2,820
1926	47	1,256	60	4,037
1927	50	1,397	53	3,669
1928	43	1,348	48	3,320
1929	54	1,613	47	3,015
1930	81	2,318	55	3,456
1931	97	2,208	54	3,049
1932	96	1,832	63	2,913
1933	119	1,914	65	2,711
1934	101	1,558	59	2,222
1935	99	1,629	53	2,508
1936	99	1,816	46	2,270
1937	98	2,130	39	2,173

(49)
to 29,856 in 1929, and to 35,659 in 1936. This very considerable increase in the number of persons engaged in primary fishery operations is indicative of extreme pressure upon many other branches of economic activity.

Summary

Although the decline in economic activity in the Maritime Provinces during the depression was very great, the position of these provinces seems to have been relatively better than that of most other parts of the Dominion according to the National income figures compiled for the Commission. (50) The income received by the people of the Maritime Provinces declined about 38% from 1929 to 1933; but the income received by the people of Ontario fell about 42%, by the people of Quebec about 43%, and by the people of the entire Dominion about 46%. The increase from 1933 to 1936 was, for the Maritime Provinces, about 29%, for Ontario about 31%, for Quebec about 28%, and for the entire Dominion 32%. These figures are, of course, only estimates and subject to a considerable margin of error, but they do indicate that the Maritime Provinces as a whole weathered the depression relatively well as compared with the rest of the Dominion. This is also confirmed by figures of employment. The index of employment, which dropped about 26% for the Maritime Provinces from 1929 to

(49)

MARITIME PROVINCES - NUMBER EMPLOYED
IN PRIMARY OPERATIONS OF THE FISHING INDUSTRY

<u>Year</u>	<u>Nova Scotia</u>	<u>New Brunswick</u>	<u>Prince Edward Island</u>	<u>Total Maritime Provinces</u>
1925	16,266	8,939	3,017	28,222
1926	16,315	9,024	2,916	28,255
1927	16,131	10,198	2,675	29,004
1928	15,857	11,040	2,396	29,293
1929	15,734	11,920	2,202	29,856
1930	15,265	12,047	2,281	29,593
1931	15,527	12,764	2,431	30,722
1932	16,258	13,411	3,018	32,687
1933	17,133	12,289	3,194	32,616
1934	18,448	13,062	2,973	34,483
1935	17,907	12,988	3,365	34,260
1936	18,359	14,207	3,093	35,659

(50) For National Income Figures see Professor Mackintosh's Study, Table 13, also the Appendix on National Income.

1933, dropped about 32% for Ontario, and about 28% for Quebec. In 1937 the index for the Maritime Provinces was 5% above the 1929 level, but the index for Ontario was 4% below, and the index for Quebec only 2% above. Further evidence that the Maritime Provinces did not suffer so severe a decline as most other parts of the Dominion is seen in the figures for net value of production which indicate that the Maritime Provinces improved slightly their relative position. They contributed 6.1% of the total net production of the Dominion in 1929, 6.5% in 1933, and 6.6% in 1935. (51) These figures are not of equal significance and all that it is legitimate to claim for them is that they give some support to the widely held opinion that the Maritime Provinces fared slightly better than most other parts of the Dominion during a period when every part of the Dominion fared very ill.

That the Maritime region did not suffer more from the depression was no doubt due to many factors, some of which may be mentioned: The depression of the early 1920's had been more prolonged and more severe in the Maritime Provinces than in other regions of the Dominion. The net value of production in 1926 was about 26% below that of 1920, whereas in Ontario it was only about 2% below and in Quebec less than 10% below. During the prolonged period of depression fundamental readjustments were made in the Maritime Provinces, notably the shift to the production of paper in the forest industries in New Brunswick. Recovery started later and from a lower base in this region than in other regions of the Dominion, and continued longer. Moreover, Dominion policy both before and after 1930 tended to redress the competitive position of the Maritime Provinces in the Canadian market. The Maritime Freight Rates Act of 1927 assisted producers in many branches of Maritime industry. Subventions for the transportation of coal to Central Canada, bounties on coal used in the production of coke, and a 50% rise in the tariff on bituminous coal were of

(51) See Table 9, Appendix.

undoubted importance to the coal industry. The Imperial preferences of 1932 assisted the apple industry and the lumber industry, and exports to British markets were further assisted by the more favourable exchange situation after 1933. Another important factor has been the diversified economy of the region as a whole, which enabled it to take advantage of upward trends in the price structure of a wide variety of exports. Moreover, the structure of the agricultural industry, and the dovetailing of agriculture with fishing, lumbering, and other industries tended to provide a cushion for employment and thus to relieve governments of some of the burden of unemployment relief.

Yet it must be recognized that in certain industries and in certain communities the effects of the depression were as disastrous as in any other part of Canada. Export industries were highly vulnerable, especially the dried and pickled fish trades, the lumber industry, the potato industry, and the fox industry. Coal mining and the iron and steel industry experienced the full force of the downward swing of the business cycle. Thus, as in the rest of Canada, the depression bore very unequally upon certain industries and certain communities, which raised for the governments of these provinces problems very similar to, though differing in extent from, those of other provincial governments.

One factor of exceptional importance in assisting the Maritime Provinces through the depression period was the high level of governmental expenditures. By the close of the period under discussion, governmental expenditures for each of the Maritime Provinces were more than 100% above the 1926 level. Similar expenditures in Quebec were approximately 70% above the 1926 level, but each of the other provinces had an expenditure (52) considerably less than 50% above the 1926 level.

(52) See The Economic Background of Dominion-Provincial Relations by Professor Mackintosh. Charts XI to XX.

In 1935 each of the three Maritime provincial governments began an ambitious programme of road construction, partly as a relief measure, partly following the lead of Central Canada and the New England States, and partly with a view to capturing as much as possible of the lucrative and expanding tourist trade for which these provinces have great natural advantages. These programmes involved heavy capital costs and extensive borrowing, and the region became a heavy capital importer. The extent of the borrowings is indicated by the following table:-

(53)

Capital Borrowings for Road Construction
in Nova Scotia and New Brunswick, and for
Road Construction and Relief Works in
Prince Edward Island.

(Thousands of Dollars)

	<u>New Brunswick</u>	<u>Nova Scotia</u>	<u>Prince Edward Island</u> <u>Roads</u>	<u>Relief Works</u>
1934	4,732	5,229	95	563
1935	4,022	6,524	54	217
1936	<u>9,733</u>	<u>8,925</u>	<u>67</u>	<u>287</u>
	18,487	20,678	1,283	

(53) These figures are from Public Accounts Inquiry of the Commission.

The importance of the expenditure of these sums in stimulating recovery is perhaps best understood when the figures are considered in relation to the total "national income" of the region. See Professor Mackintosh's Study, The Economic Background of Dominion-Provincial Relations, Table 13.

(1)

II. THE BASIC INDUSTRIES OF THE MARITIME PROVINCES

The economy of the Maritime Provinces rests upon four cornerstones: agriculture, mining, fishing, and lumbering.

Supported by these cornerstones is a light structure of manufacturing industries. This suggests a complex economy, and in some respects the complexity is enhanced by the smallness of the area (approximately 50,000 square miles), and by the smallness of the population, (slightly over one million persons).

(1) The Agricultural Industry

(2)

Judged by the figures⁽³⁾ of the gainfully occupied, and of the net value of production, agriculture for the three Maritime Provinces as a unit is more important than any of the other main branches of industry, but agriculture in this region is limited by the scarcity of arable land. It is more than three and a quarter centuries since the first settlers landed in what is now the Maritime Provinces, but the 1931 census shows only 6.3% of the total land area of the Maritime Provinces in

(1) In this chapter it is proposed to discuss only those features of the basic industries which are relevant to the Commission's inquiry.

(2) Percentage Engaged in Agriculture

	Prince Edward Island	Nova Scotia	New Brunswick
	<u>%</u>	<u>%</u>	<u>%</u>
Of all Gainfully Occupied	57.1	24.3	33.1
Of Males Gainfully Occupied	64.0	27.9	38.5

(3) See Appendix - Table No. 14.

field crops, 9.1% in improved land, and 29.8% in occupied
(4) farms. For each of the three provinces the percentages are:

	In Field Crops %	In Improved Land %	In Occupied Farms %
Nova Scotia	4.3	6.4	32.4
New Brunswick	5.4	7.5	23.4
Prince Edward Island	35.4	54.8	85.2

The arable land in certain parts of the Maritime Provinces is found only in small plots that are widely scattered. This gives rise to farms with small acreages of improved land, and frequently makes it impossible to increase the arable acreage of the working units by the amalgamation of holdings. It also places serious limitations on the growth of agricultural population, and makes it extremely difficult to

(4) Prince Edward Island, with little waste land, is often spoken of as the "Million Acre Farm", but the land area of Prince Edward Island constitutes only 4.3% of the total land area of the Maritime Provinces. Most of the agricultural lands of Nova Scotia, and by far the richest of them, are in the northern section of the province, stretching from the eastern part of Digby county through to Inverness in Cape Breton Island. In Nova Scotia, the largest number of farms and the largest area in farms was reached in 1891. Since that date, except for a small rise in 1901, the area in field crops has steadily declined and the area in orchards has steadily risen. In Prince Edward Island, also, 1891 marked the year of the greatest number of farms and the largest area in farms, but the area in field crops in Prince Edward Island has steadily increased from 409,000 acres in 1891 to 494,000 acres in 1931. In New Brunswick, the maximum number of farms seems to have been reached in 1911, in which year there was also the largest area in farms and the largest area in field crops. New Brunswick has been in a slightly different position to either Nova Scotia or Prince Edward Island in that agriculture has been moving into new areas in the northern part of the province, and this movement has slightly offset those forces that were tending to make agriculture in the older parts of the province behave in a similar way to agriculture in Nova Scotia and Prince Edward Island.

In New Brunswick, the most fertile areas are found along the river valleys; in the eastern section of the south-central lowlands, stretching through part of Westmorland and Albert counties; and in certain parts on the coast, more especially in the vicinity of Bathurst, on the Bay of Chaleur. Six counties in Nova Scotia: Annapolis, Colchester, Cumberland, Hants, Kings and Pictou, have 64.6% of all the improved land in the province. In New Brunswick, seven counties: Madawaska, Victoria, Carleton, York, Kings, Westmorland, and Kent, have 70.8% of all the improved land.

establish and maintain the social and commercial institutions necessary to a successful agriculture. In other parts of the Maritime Provinces, continuous stretches of arable land are broken into small fields by the topography of the country, and this militates against large-scale operations by restricting the use of machinery. When comparison is made with Ontario and Quebec, as in the following table, it is seen that the average size of farm in the Maritime Provinces does not differ greatly from the average size in Ontario and Quebec, but that the average amount in improved land and in field crops is much less. (5)

<u>Province</u>	<u>Number of Farms</u>	<u>Average Acreage of Farms</u>	<u>Average Acreage in Improved Land</u> (per occupied farm)	<u>Average Acreage in Field Crops</u>
Nova Scotia	39,444	109.1	21.4	14.6
New Brunswick	34,025	122.0	39.1	28.2
Prince Edward Island	12,865	92.6	59.5	38.5
Quebec	135,957	127.3	66.2	44.7
Ontario	192,174	118.9	69.1	48.7

Prince Edward Island, with 59.5 acres in improved land and 38.5 acres in field crops on the average farm, can scarcely be said to be handicapped by want of arable land; but New Brunswick shows an average of only 39.1 acres in improved land and 28.2 acres in field crops; and Nova Scotia comes far behind with an average of 21.4 acres in improved land and 14.6 acres in field crops. In the above table, Nova Scotia makes a poor showing, but Nova Scotia has some very fine farming areas. In the Annapolis Valley, in Schubcnacadie, and in parts of Pictou county, as stated by Professor Longley, there are to be found farms that will compete with the best in Canada and the United States. (6)

The large number of farms with a small amount of arable land and other limitations to agriculture in certain areas, especially in Nova Scotia and New Brunswick, oblige many farmers

(5) Census of 1931.

(6) Evidence before the Nova Scotia Royal Commission, Provincial Economic Inquiry, September 15, 1934.

to obtain a part of their incomes from extra-farm operations, linking agriculture very closely to lumbering, fishing, and a number of other branches of endeavour. The information available on this point is very meagre, but according to the 1931 census, 10.2% of the farm operators in Prince Edward Island, 31.0% in Nova Scotia, 20.2% in New Brunswick, and 23.6% in the Maritimes as a unit, consider their principal occupation as something other than farming.⁽⁷⁾

For a decade or two after Confederation, agriculture in the Maritime Provinces kept expanding. About the beginning of the eighties the movement towards specialization began to gather momentum. The close liaison between agriculture and other industries in the Maritime Provinces makes it difficult to present a simple story of straight line developments. As industries that had been an integral part of the rural economy moved to urban centres, rural population declined; as resources, to the exploitation of which in certain districts the agricultural industry was ancillary, were depleted, the number of farms declined; and as competition in grains and meats from newly-developed parts of the continent increased, alternatives were found in orcharding, in the dairy industry, and in the more scientific cultivation of potatoes and other roots.

Live-stock and animal products hold a key position in the farm economy of each of the provinces. The importance of animals and animal products is shown in the figures for live-stock, in the preponderance of oats among the grains, and in the relatively large acreage devoted to fodder crops. In every branch of live-stock, Prince Edward Island surpasses Nova Scotia and New Brunswick in the average number per farm. New Brunswick shows a higher average than Nova Scotia in each class of live-stock with the exception of sheep. Apple production is far more important to Nova Scotia than to either New Brunswick or Prince

(7) British Columbia surpasses Prince Edward Island with 15.9% but falls far short of the two other Maritime Provinces, or of the three Maritime Provinces taken as a unit, and the next nearest province, Quebec, shows only 8.2% of its farmers in this group.

Edward Island. Prince Edward Island and New Brunswick are more dependent upon the potato crop than is Nova Scotia. Apples and potatoes are the only agricultural commodities that are exported in large quantities from the Maritime Provinces, although Prince Edward Island produces a surplus of poultry and dairy products, which find a market outside the province, and there is a number of other items of small value individually but important in the aggregate and often vital to restricted areas.

A large number of farms in the Maritime Provinces has only a limited amount of arable land. This greatly restricts the number of live-stock that can be carried by each farm, and consequently, the total number for the whole region. Where output is on an extremely small scale, low operating costs are often difficult to attain and effective marketing facilities difficult to establish. Co-operative marketing is quite widespread, but this movement is handicapped by the many areas where output is extremely small, or insufficient to meet the local demand. The winters are long and accompanied by a heavy fall of snow, which adds to other difficulties a protracted season of indoor feeding; much of the soil requires the use of chemical fertilizers, which adds to the cost of producing protein feeds; and the limited resources can be more profitably used in the production of dairy products than in the production of meat and meat products. Nevertheless, live-stock production for other purposes than dairy-⁽⁸⁾ing, is important in the economy of all three provinces, but production, with the exception of sheep, does not equal local consumption. There is a small trade in live-stock to other

(8) The production of poultry products has steadily advanced, as is indicated by the following table for the production of eggs:

Year	<u>Production of Eggs</u>			
	<u>Nova Scotia</u>	<u>New Brunswick</u>	<u>Prince Edward Island</u>	<u>Maritime Provinces</u>
	doz.	doz.	doz.	doz.
1900	4,419,239	3,120,012	2,426,251	9,965,502
1910	5,183,355	3,887,364	3,549,090	12,619,809
1920	5,579,873	4,221,097	3,778,271	13,579,241
1930	6,881,137	5,766,109	4,019,744	16,666,990

The production in the Maritime Provinces in 1930 averaged 16.5 dozen per person, whereas consumption per caput for the Dominion averaged 24.9 dozen.

provinces, to the United States, and to Newfoundland, which, with the exception of sheep, is more than offset by shipments of meat and meat products into the region. (9)

The Maritime Provinces consume more cheese and butter than they produce. The total production of butter in Prince Edward Island is slightly in excess of local requirements, but in the other provinces there is a deficiency - about one-quarter in Nova Scotia and one-fifth in New Brunswick. With the growth of urban population there has come an increased demand for whole milk, and recently the ice-cream trade has been absorbing large quantities of cream. The demands of the ice-cream, of the whole milk, and of the butter markets, have left little milk (10) for the cheese factories.

The handicaps of the dairy industry in the Maritime Provinces go far beyond those basic circumstances that limit the economic supply of milk. Because of the smallness of most of the creameries, it is difficult for them, even when well managed, to keep down operating costs or to turn out a product of uniform quality. In a number of districts the cost of collection is high owing to the distances that separate farms and to the proportionately large number of small producers. Farms with a small output often lack adequate facilities to maintain the cream in good condition until it reaches the factory.

(9) See Appendix - Tables Nos. 12 and 13.

(10) The growth of the butter industry and the rise and decline of the cheese industry are evident from the following table:

Production of Butter and Cheese in the Maritime Provinces				
Butter			Cheese	
	Dairy lbs.	Creamery lbs.	Home-made lbs.	Factory lbs.
1860	9,835,646	-	1,228,496	-
1870	13,259,753	-	1,195,135	-
1880	15,681,151	-	850,072	453,026
1890	18,778,599	16,040	752,787	811,650
1900	18,301,387	1,184,245	-	6,918,352
1910	22,341,996	1,875,326	212,239	4,724,241
1920	18,668,779	4,722,869	100,284	3,368,923
1930	15,816,683	8,539,353	38,759	1,477,536
1936	15,036,000	11,333,300	35,300	695,100

The limitations of the dairy industry place limitations on the swine industry. The Maritime Provinces produce a proportionately large number of high-grade bacon hogs, but the total supply falls far short of meeting the local demand. The production of swine is also closely related to the production of potatoes, but, in the Maritime Provinces, the correlation of figures for swine and potato production is not so apparent as in many other potato-growing areas, doubtless because potatoes are produced as table and seed stock and most years the percentage of culls is comparatively small. (11)

Apples are pre-eminently a Nova Scotian specialty. They are produced in Prince Edward Island mainly for the farmers' domestic use, and any small surplus is disposed of locally. New Brunswick has a large number of commercial orchards but production falls far short of meeting the province's requirements. In Nova Scotia the industry is concentrated in the Annapolis-Cornwallis valley, and it has been stated that 75% of the crop is grown within a radius of twenty-five miles from Windsor. Census returns show that in 1930 two counties, Kings and Annapolis, accounted for 86% of the total apple crop, and for 85% of the value of all orchard fruits. About 75% of the crop is marketed through independent dealers, and the remainder through co-operatives. The area is well provided with warehouses to take care of the crop, and shipments are made from Port Williams on the Bay of Fundy shore and from Halifax. Distances to ports of shipment are less than for any other competing area on the continent. Exports of apples average considerably over one million barrels per year, or about 75% of the total commercial

(11) The number of swine per farm is: for Nova Scotia, 1.1; for New Brunswick, 2.5; and for Prince Edward Island, 3.2. The number of swine per milch cow is: for Nova Scotia, .40; for New Brunswick, .85; and for Prince Edward Island, .91.

(12)
production. The British market has always absorbed the bulk of the exports and since the beginning of the depression, and the granting of Imperial preferences, the proportion has been steadily increasing until in recent years it has reached about 90%.

Potatoes are the principal agricultural commodity exported from Prince Edward Island and New Brunswick. Nova Scotia does not, on balance, produce a surplus of potatoes, and shipments out of the province are fully offset by purchases from Prince Edward Island and New Brunswick. By 1860, Nova Scotia was giving up the raising of beef cattle to grow potatoes, and at the time of Confederation led the Maritime Provinces in the export of potatoes. New Brunswick was scarcely a factor in this trade and did not divert much of her energy from lumbering to the production of potatoes for export markets until the present century. When New Brunswick was going into the potato business on a considerable scale, Nova Scotia was going out and was replacing potatoes by apples and other fruits. Since Confederation the Maritime Provinces have been pre-eminent in the export of potatoes from the Dominion, and now virtually monopolize the

(12) See Appendix - Table No. 7. Small fruits are of much less importance than orchard fruits, which are made up principally of apples. The production of small fruits in 1930 was valued at \$163,000 in Nova Scotia, \$142,000 in New Brunswick, and \$14,000 in Prince Edward Island. Two counties in Nova Scotia, Guysborough and Richmond, derive some revenue from the sale of foxberries, and find the chief market in the United States. Blueberries are shipped from Nova Scotia and New Brunswick, and of late there has been a revival in the cranberry trade. (Census returns understate the value of "other small fruits", under which category are included foxberries, blueberries, and cranberries. Compare the Reports of the Department of Agriculture, Nova Scotia, with the census returns for confirmation of this statement.) But strawberries make up from 80% to 90% of the total value of small fruits in each of the three provinces, and shipments are made from Nova Scotia and New Brunswick to Montreal and Boston.

(13)
trade.

The Maritime Provinces were the most seriously affected by the consequences of the discovery in Canada of Powdery Scab (c. 1912) and they were the chief beneficiaries of the new work and the new policies that were undertaken to cope with the menace of potato diseases. It was found that in Prince Edward Island large areas were practically without disease and the quality of the potato raised was of the highest. In 1918, the first carload shipment of certified seed potatoes left Prince Edward Island, and in 1919 this trade was opened with the United States. The production of certified seed potatoes has become of increasing importance in retaining at least part of old markets in the face of rising tariffs and other restrictions, and it has enabled the Maritimes in very recent years to invade new markets in South America. (14)

The type of soil found in most agricultural parts of the Maritime Provinces, coupled with the length of time that these soils have been worked, calls for the application of lime and chemical fertilizers if the best results are to be achieved. According to the 1931 census, Prince Edward Island led all the provinces in the expenditure per farm for fertilizers, New Brunswick came second, and Nova Scotia third. The use of fertilizers is determined probably as much by the type of crop grown as by soil characteristics, and roots and fruits, very important in the agriculture of the Maritime Provinces, are two types of crop that

EXPORT OF POTATOES						
(In thousands of bushels)						
(13)		Prince	Nova	New	Maritime	Provinces
Five-Year	Canada	Edward	Scotia	Brunswick	Exports	% of exports
Averages		Island				from Canada
1876-1880	1,697	790	521	139	1,450	85.5
1881-1885	1,986	571	636	202	1,409	71.0
1886-1890	1,784	899	583	181	1,664	93.3
1891-1895	1,568	502	430	160	1,093	69.7
1896-1900	829	155	491	63	710	85.7

(14) For acreage and production of potatoes see Appendix - Table No. 16. See also Table 15 for acreage of certified seed potatoes. For Cuban restrictions see discussion of the period 1930-37 in Part I.

call for and can carry intensive use of fertilizers.

The raising of foxes in captivity was begun in Prince Edward Island about fifty years ago and the other Maritime Provinces soon followed her example. The industry is now established in many provinces throughout the Dominion, and in a number of other countries, but Prince Edward Island still leads the world in the production of high-grade pelts and high-grade breeding stock. The demand for breeding stock has greatly declined, leaving the industry largely on a peltry basis; and, because fox furs are a luxury commodity, the demand for fox pelts fluctuates widely with the business cycle. In the agriculture of the Maritime Provinces foxes may be legitimately considered as another kind of live-stock, for the raising of foxes has been combined with general farm operations and the combination has been found to work very satisfactorily.

The characteristics and trends of the agricultural industry of the Maritime Provinces may be briefly summarized as follows:

- (1) - Agriculture in the Maritime Provinces is a mature industry. The more suitable farm lands have long since been settled, and the process of abandoning the less suitable areas has been carried far. Within recent years, the opening up of new territory suitable to agriculture has been important only in New Brunswick.
- (2) - Only a relatively small part of the land of the Maritime Provinces is arable, and the best of this arable land is, for the most part, concentrated in relatively few favoured spots. This results in a high degree of concentration of agricultural production.
- (3) - In general, the topography of the country, even in the better agricultural areas, militates against extensive farming by placing limits upon the use of machinery. In the less favoured areas, the amount of agricultural land available on each farm is usually extremely small. The result is that the entire region bears the aspect of a land of small farms.
- (4) - The agricultural industry of the Maritime Provinces is closely dovetailed with a number of other industries, that is to say, farming is often combined with fishing, lumbering, mining, or some other occupation.
- (5) - The relative isolation of some of the small farming communities and the extensive practice of combining one or several other occupations with farming make difficult a high degree of efficiency in farm management and the adoption of new and approved agricultural practices.

- (6) - The character of the soil and available markets favoured the production of roots, fruits, and dairy products. There has been a degree of specialization in each of these three branches, but the typical farm in the Maritime Provinces is still a mixed farm.
- (7) - The two important cash crops, apples and potatoes, have developed in response to the demand of outside markets and are therefore in an exposed position, being subject not only to outside competition but also to the vagaries of the tariff policies of many countries.
- (8) - In many agricultural commodities the Maritime Provinces form a deficiency area. They have long been dependent upon outside sources for most of their wheat and wheat flour, and for some time the production of butter, cheese, eggs, and meats, has fallen far short of the total requirements of the region.
- (9) - The circumstances under which farming is carried on in many parts and the existence of a large number of very small producers militate against the production of a high-quality product; and make it difficult to organize the marketing side of the industry, difficult to improve production standards, and, consequently, difficult to increase the monetary returns in the less favoured areas.
- (10) - Dominion and provincial governments played an important part in the development of the cheese industry during the nineties of last century; Dominion and provincial officials co-operated to place the Prince Edward Island egg and poultry industry on a sound foundation; and the Dominion department, in its endeavour to bring potato diseases under control, developed a system of field and crop inspection that went far to establish and maintain the seed potato industry of the Maritime Provinces. Governmental activities of a different sort are seen in the endeavour on the part of the Nova Scotia government to bring the apple maggot in the Annapolis Valley completely under control. Governments everywhere are very active in their endeavour to improve their agricultural industries; and, accepting this general relation between governments and agriculture, it will be clear, without going back farther than the preceding points in this summary, that the field for government action in the Maritime Provinces is very wide.

(2) The Mining Industry

The mining industry in the Maritime Provinces comprises a large range of activities, from the making of grindstones to the recovery of gold, and from the baking of clay products to the digging of coal. In Nova Scotia, mining contributes from 20% to 25% of the total net value of production; in New Brunswick, from 2.5% to 4.5%; and in Prince Edward Island, practically nothing. According to the 1931 census, there were 153,151 males gainfully occupied in Nova Scotia, of whom 14,947 were in the mining industry; in New Brunswick there were 117,933 males gainfully occupied, of whom 947 were in the mining industry; and in Prince Edward Island 27,818, of whom only eight were in the mining industry. Since census figures cover only those engaged in primary operations it seems safe to say that in Nova Scotia some 18,000 were dependent upon the mining industry, and in New Brunswick, some 1,500. (15)

Although in recent years the Maritime Provinces have been contributing proportionately less to the total value of mineral production in Canada, there was no absolute falling off in the value of mineral production in the Maritime Provinces until the depression following 1929. In 1900, the total value of mineral production in the Maritime Provinces was, in round numbers, \$9,737,000, and thereafter the five-year averages show a steady increase to \$31,623,000 for the quinquennium 1926-1930. In 1937, the figures stood at \$33,098,000 higher than any of the quinquennial averages, though not the highest individual year. (16)

(15) The importance of mining from the point of view of employment is further emphasized by the fact that in every census since 1881 Nova Scotia has led all provinces in the number engaged in mining. In 1931 Ontario was nearest with 14,848 as against 14,947 for Nova Scotia.

(16) See Appendix - Tables 17 and 18, for statistics of the mining industry in Nova Scotia and New Brunswick for 1928 and 1937.

A wide variety of minerals and mineral products are to be found in the Maritime region. Iron, iron oxides, tungsten, molybdenum, antimony, and slate have been mined from time to time in either Nova Scotia or New Brunswick or in both provinces, and deposits of kaolin, talc, soapstone, nickel, and tin are known to exist. Gold has been produced continuously in Nova Scotia since 1862, and stimulated by the rise in the price of gold since 1931, the industry has been expanding, but to date no large mines have been brought into production. Gypsum, lime, and grindstones have long been produced in the Maritime Provinces, and gypsum is still of considerable importance. Gypsum is disposed of chiefly in the United States, where there is stiff competition and where demand fluctuates with the demands of the building trade. Salt, on the other hand, finds its principal market in Canada, especially in the Maritime Provinces. Production has increased persistently, with only slight setbacks, but the industry has not found the going easy, owing apparently to technical difficulties in mining and to stiff competition from the imported product, especially salt from the West Indies brought in as return cargo at low rates.

In New Brunswick considerable quantities of natural gas are produced and there are large deposits of oil shale. Oil shale also exists in Nova Scotia. Oil has been produced in small quantities in New Brunswick for some years but there have as yet been no discoveries of oil deposits of great commercial value.

Mining in the Maritime Provinces, with the exception of coal, tends to be conducted in small units, and, with respect to many products, to be distinctly a marginal industry.

(17) Further information on mineral substances other than coal may be obtained from Tables in the Appendix Nos. 19 to 23.

(3) The Coal Mining Industry

"More than one-fifth of the population of the province of Nova Scotia are directly dependent upon its coal industries and the subsidiaries thereof." ⁽¹⁸⁾ The probable number of men engaged in the mining of coal in Nova Scotia has been placed at 13,500, and the number employed directly in the mining and handling of coal at 16,000. Coal makes up from 80% to 90% of the total value of minerals produced in the province. In New Brunswick the industry is of much less importance than in Nova Scotia: production is only about one-twentieth as much as that of Nova Scotia; and the reserves ⁽¹⁹⁾ are only about 2% of those of Nova Scotia.

Nova Scotia possesses the only coal deposits on the Atlantic seaboard of North or South America, and the only large deposits of high-grade coal east of Alberta on the Canadian side of the international boundary line. Its location at tidewater has made possible the exploitation by means of water carriage of the distant markets of the lower St. Lawrence valley, and has facilitated the development of an iron and steel industry through the use of Wabana iron ore.

The reserves of coal in Nova Scotia are large, although only 0.79% of the total for the Dominion, but the industry faces increasing costs of production, and an increasingly adverse competitive position as against the American bituminous industry. Over 50% of the coal raised in Nova Scotia is won from submarine mines. As these mines are pushed seawards, the

(18) Report of the Royal Commission on the Nova Scotia Coal Industry, 1926, page 31.

(19) These small reserves are found in thin seams, the thickest of which varies from sixteen to thirty inches. Fortunately, this thickest seam is also the top seam and is quite near the surface. Some of the coal is won by strip mining, but most is won by underground mining through shafts that go no deeper than 125 to 150 feet.

distance that the coal has to be hauled from the coal face to the mouth of the pit, and the time lost by the men going to and from their work steadily increases. Elsewhere in the province the coal seams dip abruptly and are often severely faulted. These mines run to a considerable depth in a comparatively short time and involve heavy expenses in lifting the coal, in providing adequate ventilation, and in keeping the mines free from water. In the major producing units, mechanization is already well advanced and steady progress is being made in further mechanization and in improved methods of mining.

As has been pointed out previously, coal production reached its peak in 1913. Since then its difficulties have been in part a reflection of circumstances in the coal mining industry the world over and in part a reflection of circumstances peculiar to the Canadian economy. The world production of coal in 1913 has been surpassed in only one year since that date (1929), and then by a paltry 4.19%. The rapid rise in the consumption of coal - so distinguishing a feature of the century before the War - could not continue, because the consumption of coal was restricted by the slackened pace of industrial expansion, by economies in the use of coal, by the substitution of oil for coal as a fuel, by the rapid development of hydro-electric power, and by the increased use of the internal combustion engine.

All these factors have had their effect upon the industry in the Maritime Provinces and to them have been added special circumstances within the Canadian economy. The development of the iron and steel industry and the coal mining industry of Nova Scotia prior to 1913 was due primarily to railway expansion within the Dominion, and the end of railway expansion left the industries confronted with the problem of diversifying production and finding other markets. Changes in

the structure of the Canadian economy during the period following the Great War have tended to concentrate industries in parts of Canada where the use of Nova Scotia coal is not economical. The development of hydro-electric power in the province of Quebec, the most important outlet for Nova Scotia coal, has run far ahead of industrial requirements, and the surplus power has been disposed of at very low rates. (20) The internal combustion engine is nearly as common in Canada as in the United States, and Canada is among the larger consumers per caput of oil for domestic heating and for generating industrial power. The use in Canada of automatic stokers for the fuller utilization of coal was begun about 1910. These new furnaces were built to burn American coal, and very often the Nova Scotia product proved unsatisfactory. Research work has helped to remove many of the difficulties formerly encountered in the use of Nova Scotia coal, and a more adequate sales policy is helping to overcome the prejudice created by unfortunate early experiences. But the present equipment in Canada is rapidly becoming obsolescent and it is felt that, as modern furnaces are installed, the additional saving of fuel may counterbalance any extension of the market.

The business cycle is another factor of particular importance, and its downward swing bears with disproportionate severity upon the coal mining industry of Nova Scotia because such a large part of the output from these mines is consumed by the railways, in the iron and steel industry and in manufacturing generally. For a long period, the iron and steel industry in Nova Scotia has absorbed on the average about 25% of the total output of coal from the Nova Scotia mines. The reduction of output in the iron and steel industry and

(20) It has been estimated that in Canada (chiefly Quebec and Ontario) an outlet for no less than 1,200,000 tons of coal is being lost annually by the use of electricity for the purpose of raising steam. As industrial requirements increase, this prodigal use of electric power will have to be abandoned.

consequently the decline in the consumption of coal in the Maritime market, during periods of business recession is well understood, but the decline in the consumption of coal in the St. Lawrence market is only slightly less than the decline in the Maritime market.

Certain social problems incident to the difficulties of the coal mining industry have a direct bearing upon public finance. The labour force tends to remain fairly rigidly fixed at the number required during years of highest production. Labour in the industry is highly unionized, which helps to keep wage rates high. The industry is subject to wide seasonal and cyclical fluctuations, and the tendency during periods of low production is to spread work. The result is that, although wage rates remain fairly high, weekly, monthly, and especially yearly earnings are often very low. ⁽²¹⁾ Moreover, miners are not

(21) Employment and Earnings, Nova Scotia Coal Mines, 1929-1936

<u>Year</u>	<u>Average No. of Employees</u>	<u>Highest No. of Employees Reported in Each Year</u>	<u>Average Yearly Earnings for Average Number Employed</u>	<u>Average Yearly Earnings for Highest Number Reported</u>
1929	12,760	13,082	\$1,472	\$1,436
1930	13,376	13,742	1,280	1,246
1931	13,388	13,607	1,002	986
1932	12,623	13,348	790	748
1933	11,861	12,219	731	709
1934	12,051	12,680	1,000	951
1935	12,674	12,921	952	934
1936	12,848	13,046	1,035	1,019

easily shifted to other occupations that may require less skill or to those in which money wages are lower, such as farming, fishing, or lumbering. Many, if not most, of the mining towns are one-industry towns, and when depressions come the number who have to be assisted is usually very large. Therefore, during periods of depression, the economic and social problems in the coal mining centres of the Maritime Provinces are certain to be fully as great as those in any of the industrial centres of Central Canada. There also arises the problem of derelict towns, derelict because the coal in the district has been exhausted. These conditions play havoc with municipal finance and lay relatively heavy financial burdens on central governments.

(Page 77 follows)

(4) The Fishing Industry

The Maritime Provinces are advantageously placed with respect to the fisheries of the North Atlantic. Parts of Nova Scotia and New Brunswick border upon the Bay of Fundy, which has an area of about 8,000 square miles. Prince Edward Island is in the Gulf of St. Lawrence and part of Nova Scotia and New Brunswick border upon the Gulf of St. Lawrence, which has an area of about 80,000 square miles. East of Nova Scotia lie the ocean fishing areas, including the many banks that stretch from the Gulf of Maine to Newfoundland. The fishing banks have an area of more than 70,000 square miles. The Maritime Provinces, especially Nova Scotia, are in close proximity to about four-fifths of the total fishing area of the North Atlantic. The coast line bordering on these fishing areas, and to which the Maritime Provinces have access, measures, exclusive of minor bays and indentations, approximately 5,000 miles.

The fishing industry of the Maritime Provinces is a complex industry in that the raw materials (kinds of fish) are quite numerous, and each is marketed in a variety of forms. Each kind of fish in each of its processed forms is usually a quite distinct commodity. In 1936 a minimum of eighteen kinds of fish, such as herring, cod, mackerel, etc., processed in seventy-eight forms, such as smoked, dried, filleted, canned, etc., made up 96% of the marketed value of Nova Scotia's fish. For the same year fourteen kinds of fish processed in sixty different forms made up 98% of the marketed value of New Brunswick's fish; and ten kinds of fish processed in thirty-one different forms made up over 99% of the marketed value of Prince Edward Island's fish. It might be added that even under one process for a given specie may be found a number of distinct commodities. For example, dried cod for the Brazilian market is a different

commodity from dried cod for the Cuban market, or from dried cod for the Porto Rican market.

The fishing industry of the Maritime Provinces is not, as, for example, in British Columbia, a highly centralized industry. Operators are to be found at practically all the many bays and harbours along the extensive coast line of the three provinces, and the individual fisherman is still, in many branches of the industry, working on his own account and is largely responsible for the methods employed in catching, and very often in processing, the fish. This makes it very difficult to obtain uniformity in the final product. With the exception of firms principally interested in the fresh fish trade and the sardine industry of New Brunswick, fish canning and curing establishments are organized in small individual units. To give only one illustration: In the three Maritime Provinces, in 1936, there were 240 lobster canneries producing, in all, 80,463 cases of canned lobsters, or approximately 335 cases per cannery. The export trades are concentrated in the hands of comparatively large firms, but many of these firms are merely dealers in fish, having practically nothing to do with processing. In all branches of the industry, therefore, with only a few exceptions, it is very difficult to obtain uniformity in the finished product and to introduce new methods and processes.

Those engaged in primary fishing operations may be classed generally as a low income group; and since 1929 shore fishermen have been perhaps the lowest income group in the Maritime region. The fishing industry is subject to numerous vicissitudes and in many fishing communities there is little or no available agricultural land and often no nearby forest operations or other activities to enable the fisherman to supplement his income. Many fishing communities, especially in recent years, may indeed be described as depressed areas. Educational facilities in these communities are likely to be of the poorest, and medical and other social services are usually inadequate

and often lacking. If these communities are to participate in rising educational standards and in the extension of other social services, a very large part of the cost will have to be borne by provincial governments.

In recent years a considerable measure of self-help has been stimulated in many fishing communities. Co-operative processing and marketing of fish has developed extensively, with the result, it is said, of bringing larger returns to the primary producer, though at the expense of the middleman. Community activities such as credit unions and consumers' co-operatives have also developed on a considerable scale. The general result has undoubtedly been to improve economic and social conditions in many depressed communities. For these developments most of the credit must go to St. Francis Xavier University, which has sponsored the co-operative movement.

As has been indicated at various points in the historical survey, the fishing industry as a whole is an export industry, and as such is highly vulnerable to external market conditions. Since the War, the industry generally has been in difficult straits. For this there have been many causes: exports to southern European markets failed to recover to their pre-war levels, which intensified competition in the West Indian and South American markets; buying power in the West Indies fell persistently with the decline in sugar prices; and some producers, more especially Iceland, greatly increased their output. The acute conditions that developed in the markets for dried and pickled fish led to a shift from production for these branches of the trade to production for the fresh fish trade, but expansion in the fresh fish trade has not been sufficient to take up the slack caused by the decline in exports of dried and pickled fish. There are only two important outlets for fresh fish: one is the Canadian market, the other is the United States market. Expansion in the Canadian market has been limited by the size of the market, by distances, and by competition with other low-priced foodstuffs; and exports to the United States market have been restricted by

tariff and administrative regulations.

During the depression conditions in the industry were particularly severe. In the dried fish trade, competition from Newfoundland, Iceland, and European countries, grew keener. The European markets declined rapidly, which intensified still further competition in the South American and Caribbean markets. Competition from Norway was severe, and it was especially resented because the Norwegian industry was subsidized, and had been subsidized from the early 1920's. Freight rates became an extremely important factor in the trade, and European shippers had a very definite advantage over Canadian shippers. It appears, too, that Newfoundland shippers were often able to secure better rates through Halifax and New York than were Canadian shippers. (22)

The plight of the industry as a whole since 1926 is illustrated by the value of fish and fish products marketed, as shown in the following table. It will be observed that the decline was particularly severe from 1930 to 1933, and that even as late as 1936 total values were approximately 25% below 1929.

TABLE 6
(a)
Gross Value of Production of Fisheries
(000's omitted)

	<u>P. E. I.</u> \$	<u>N. S.</u> \$	<u>N. B.</u> \$
1926	1,359	12,506	5,325
1927	1,368	10,784	4,406
1928	1,197	11,682	5,002
1929	1,297	11,427	5,935
1930	1,141	10,411	4,854
1931	1,079	7,987	4,170
1932	989	6,558	2,973
1933	842	6,011	3,000
1934	964	7,674	3,680
1935	900	7,853	3,950
1936	953	8,905	4,400
(a) Dominion Bureau of Statistics <u>Fisheries Statistics of Canada</u>			

(22) See Reports on Markets for Dried and Pickled Fish, Mackenzie, O.F., and Zwicker, F.H., (Ottawa: 1938).

The fishing industry in general looks to a revival in the export trade, especially exports of dried and pickled fish, as the surest and safest means of assisting all branches of the industry. Revival in the export trade depends upon a great many variables and many imponderables. It depends upon the revival of European markets for fish, and upon the revival of world markets for cane sugar and coffee. It depends upon favourable tariff rates and favourable transportation rates. It depends, too, upon the adoption of the most economical methods of catching, curing and marketing fish, and possibly also - although the trade is by no means agreed on this point - upon an efficient system of grading.

(5) The Forest Industries

The forest industries are vital to the economy of New Brunswick, very important to that of Nova Scotia, and of little consequence to that of Prince Edward Island. In New Brunswick the primary products of the forest industries contribute from 20 to 30% of net value of production and are surpassed in this respect regularly by agriculture and occasionally by manufacturing.⁽²³⁾ In Nova Scotia the primary products of the forest industries contribute from 7 to 10% of the net value of production and hold from fourth to sixth position. In Prince Edward Island the primary products contribute from $2\frac{1}{2}$ to $5\frac{1}{2}$ %.⁽²⁴⁾

From the point of view of employment, the lumber industry is of great importance in both New Brunswick and Nova Scotia. Of the total number employed in manufacturing industries, the wood-using, the paper-making, and the paper-using groups account for over one-third in New Brunswick, about one-fifth in Nova Scotia, and for about 10% on the average in Prince Edward Island. In New Brunswick these groups, taken as a unit, have no rival, and in Nova Scotia they held first place during the years of the depression to as late as 1935. In addition to those

(23) This showing on the part of manufacturing industries is made possible by the large proportion of manufacturing that is dependent upon forest products.

(24) See Appendix - Table No. 37.

engaged in the manufacturing branches of the forest industries a considerable number are required each year to carry out the operations in the woods. In the Maritime Provinces operations in the woods are confined generally to the winter months. This makes possible the employment of off-season labour from agriculture, fishing, saw milling, etc. (25) A considerable amount of the timber and pulpwood produced comes from farm wood lots rather than company holdings. But the net effect is the same: a large volume of employment in the off-season is provided for farmers, fishermen, and others, whether as wage-earners or as individual producers. (26)

Of the revenue freight loaded in New Brunswick, forest products made up well over 50% in pre-depression years, and if woodpulp and newsprint are included, never fell lower than 45% during even the severest years of the depression. In Nova Scotia, forest products make up from 4 to 8% of revenue freight loaded.

In New Brunswick, 21,962 square miles, approximately 80% of the total land area, are forested; in Nova Scotia, 12,000 square miles, approximately 58% of the total land area, are forested; and, in Prince Edward Island, 725 square miles, approximately one-third of the total land area, are forested. In Prince Edward Island 73% of the forested area is on farms; in Nova Scotia, 33%; and in New Brunswick, 15%. The forested area on farms has usually been worked over, perhaps a number of times, with the result that the stands of timber are in general of small dimensions and are heavily weighted on the side of hardwoods in

(25) The Bureau of Statistics in Operations in the Woods, estimates workers in the woods on the basis of man-production. Allowing for 100 days of work per man, operations in the woods in 1931 employed in New Brunswick about 15,500 and in Nova Scotia about 12,000. Deducting those listed as "lumbermen and raftsmen" in the census of the same year, leaves about 12,500 part-time workers for New Brunswick and 9,900 for Nova Scotia.

(26) In addition to the money paid for manual labour, farmers receive a considerable income from the rent of horses, and from providing other supplies to lumber camps. In a report prepared by the Department in Nova Scotia in 1932, it was stated that approximately 5,000 farm horses were used in the woods each winter.

the form of woodlots. In Prince Edward Island practically none of the forested area is held by the Crown, in Nova Scotia about 12% is held by the Crown, and in New Brunswick about 50%⁽²⁷⁾.

The New Brunswick government, it will be seen, is in a much better position to derive revenue from forest resources than is either of the other Maritime Provinces, and is also in a much better position to direct a general forest policy. Over the ten year period ending 1937, New Brunswick has collected on the average about \$650,000 in royalties and other fees from the forests, while Nova Scotia averaged only about \$50,000.

An examination of data pertaining to the stand of timber leads to the conclusions: (1) that there has been an excess of cutting of the larger dimensions, especially in New Brunswick; (2) that the stands of hardwood are proportionately much greater than the cut of hardwood; and (3) that there is an excessive drain on the species most in demand. To illustrate the last conclusion, it may be pointed out that spruce constitutes about 50% of the softwoods in both New Brunswick and Nova Scotia. However, of the total production of lumber (both hardwood and softwood) for the sixteen years ending 1928, spruce accounted for 76% in New Brunswick, and for 72% in Nova Scotia. For the period, 1928-34 inclusive, corresponding percentages rose to 85 for New Brunswick and 81 for Nova Scotia. Spruce predominates also in the pulpwood branch of the forest industries. For the six years ending 1933, spruce and balsam made up more than 95% of the species used in the production of wood-pulp in the two provinces, and most of this

(27) A considerable amount of the alienated forest lands; which in New Brunswick make up about 35% of total forest lands, and in Nova Scotia about 55%, is in fairly large holdings. A large share of these lands is held by corporations, of which a considerable number are foreign-controlled.

was spruce.

In recent years some attention has been paid to the problem of forest management. A start in this direction has been made in Nova Scotia. The Dominion Forest Service, in co-operation with the Nova Scotia government, has established a number of demonstration plots on which thinning and improvement cuttings have been made, and these have been of very considerable value in educating the local woodlot owners. As mentioned earlier, it may be difficult in the Maritime Provinces, where large tracts of forested lands are held in fee simple, for the governments to effect an adequate forest policy. In Ontario, Quebec, and British Columbia, where the Crown owns over 90% of the forested areas, governments are in a much stronger position.

The lumber industry in the Maritime Provinces reached its peak before the Great War. As indicated in the historical survey, since the War its general drift has been downwards with a slight upturn after 1933.⁽²⁸⁾ The downward trend in production since the Great War has been due in part to stiffer competition from Pacific Coast lumber in the Eastern United States market, as a consequence of the opening of the Panama Canal; and increased American tariffs in 1930 added substantially to the handicaps in this market. In part it has been due to stiff

(28) This is borne out further by the following table showing exports to the two principal markets 1925 to 1937.

Exports of Forest Products other than Pulp-wood, Wood Pulp, Paper and Paper Products.

(000's omitted)

Year	Total	NOVA SCOTIA		NEW BRUNSWICK		
		United Kingdom	United States	Total	United Kingdom	United States
	\$	\$	\$	\$	\$	\$
1925	4,910	1,636	2,293	13,269	3,113	9,237
1926	5,073	1,746	2,501	13,047	3,243	9,047
1927	4,396	1,094	2,516	10,738	2,142	7,837
1928	4,219	1,825	1,648	10,115	2,562	7,022
1929	4,071	1,563	1,606	7,765	2,012	5,415
1930	3,742	1,902	1,092	6,478	1,843	4,229
1931	2,675	1,299	639	4,460	1,387	2,818
1932	1,620	629	453	3,069	911	1,964
1933	1,479	861	164	2,209	1,083	983
1934	2,409	1,781	147	3,969	2,463	1,200
1935	3,631	2,798	147	4,825	3,346	1,012
1936	3,021	2,258	289	4,220	3,573	1,453
1937	3,824	2,952	472	5,773	3,189	2,299

competition from northern European producers in the other historic market, the United Kingdom. But the most important factor is undoubtedly that the more accessible stands of timber have been cut over, and the industry has to bear higher costs of production, and in general the finished product has to be transported longer distances to seaboard. Even in its best days production in the lumber industry fluctuated greatly. The industry had developed on an export basis depending primarily on two markets, ⁽²⁹⁾ the Eastern United States and the United Kingdom and in both the demand fluctuated in accordance with the business cycle.

There is a considerable local market for sawmill products in addition to that provided by the construction industry. The fishing industry uses a large number of barrels and boxes, some vessels, and many boats. The potato and apple industries need annually a large supply of barrels. The mines require timbers, pit props, and hardwood packs. The wood-working and wood-using industries, apart from those directly connected with the lumber trade, though not extensive, also absorb their quota of forest products. The local market will undoubtedly expand, but external markets are, and will for many years continue to be, dominant in the main divisions of the forest industries of the Maritime Provinces. This places strong emphasis upon marketing organization, technical efficiency in the forest industries, a more balanced utilization of the forest resources of the provinces, and a closer dovetailing of the various branches of manufacture and production.

Although the industry has been declining, and may decline still further, the production of forest products will long remain very important to the economic life of the Maritime Provinces. Output can be stabilized at a level perhaps higher than at present, though certainly lower than formerly, and the industry can be made more remunerative by the adoption

(29) - Prior to the latter years of the nineteenth century; Nova Scotia's largest market was in the West Indies.

of better forest practices and more efficient methods of production. Trade agreements, such as those effected at Ottawa, may help to stabilize markets, but the industry will be subject to wide fluctuations as long as the phenomenon of the business cycle persists.

The bright spot in the forest industries is the development of pulp and paper. Although there was some production of pulpwood before the War for consumption in local pulp mills and for export to the Eastern United States, the pulp and paper industry in the Maritime Provinces, as in other parts of Canada, has been principally a post-war development. Pulpwood has been produced either for export, principally to the United States, or for use in local plants manufacturing pulp or pulp and paper. Production of paper began in northern New Brunswick in 1923, and at Liverpool, Nova Scotia, in 1930. Although production in the pulp and paper industry in both Nova Scotia and New Brunswick fell off considerably in the years 1932-3-4, operations were maintained at a higher percentage of capacity than in either Ontario or Quebec. The increase in the capacity of mills during 1930 and 1931 and the higher operating ratios were important factors in providing a relatively large outlet for locally produced pulpwood. During the depression, the mills purchased a much larger percentage of their pulpwood from farmers and independent operators than they had in earlier years, which pulpwood was obtained at very low prices, and these low prices were of considerable importance in strengthening the competitive position of the Maritime pulp and paper industry. In so far as the relatively larger output of the pulp and paper industry of the Maritime Provinces was made possible by the lower prices paid for pulpwood, the community bore the burden; but there was some compensation in that the sale of pulpwood, even at these very low prices, helped to mitigate the consequences of the disastrous decline in the production of lumber. Owing to the depressed condition in the lumber industry, it is impossible to estimate accurately the extent of the shift to pulp and paper, but it is highly significant that in 1925 only 26% of exports of forest

products from Nova Scotia and 33% from New Brunswick consisted of pulpwood and pulp and paper products, whereas by 1935 the percentages were respectively 65 and 72.

The following table indicates the growth of the industry from 1913 to 1935. The amount of pulpwood produced for local processing is particularly significant because of the greater value of the final product and the increases in local employment which local processing produces.

(Page 88 follows)

TABLE VII
PULPWOOD PRODUCTION (a)
(In Cords)

Year	NOVA SCOTIA			NEW BRUNSWICK			TOTAL
	Consumed Locally	Exported	Total apparent Production	Consumed Locally	Exported	Total apparent Production	Apparent Production Nova Scotia and New Brunswick
1913	20,562	6,049	26,611	53,121	141,553	194,674	221,285
1920	24,595	27,211	51,806	180,723	185,637	366,360	418,166
1925	51,779	94,340	146,119	264,427	150,610	415,037	561,156
1930	171,405	215,746	387,151	409,558	165,280	574,838	961,989
1935	230,352	144,713	375,065	537,281	206,264	743,545	1,118,610

(a) The figures for 1925 and subsequently are from the Provincial Reports.

The Nova Scotia figures for 1935 do not agree with those given in the Provincial Report, and the disagreement arises out of the employment in Nova Scotia of a new conversion factor to obtain the number of cords of pulpwood, whereas in the above table the old conversion factor was retained to keep the figures comparable.

For the production of pulpwood and pulp and paper the Maritime Provinces would seem to have many advantages. Growth in the forests is very rapid and, as the pulp and paper industry can use smaller timber than the lumber industry, the switch to pulp and paper permits of more frequent cropping. Electric power in sufficiently large quantities has been or can be developed fairly cheaply. The large number of streams and the relatively short run from the interior to the sea makes possible cheap transportation of the raw product to tidewater, either for manufacture or shipment. Extensive road developments in recent years have opened up many areas hitherto relatively inaccessible. Production of paper at tidewater makes for cheap transportation to the Eastern United States, the principle market, or to markets overseas. The pulp and paper industry in the Maritimes generally, and especially the Nova Scotia unit, is favourably situated with respect to the American market - the world's largest market for sulphite pulp and for newsprint. Some expansion of the industry in both New Brunswick and Nova Scotia would seem possible. The industry is closely integrated with other occupations in the area: it provides a ready market for pulpwood cut on farms, and, as with the lumber industry, it can obtain relatively low cost seasonal labour in the off-season for agriculture and fishing.

III - The Manufacturing and Service Industries.

Considerable space has been given in the discussion of basic industries to manufacturing incidental to the processing of local Maritime primary products. In this section no attempt will be made to describe manufacturing as a whole, but rather to set out a few broad generalizations.

In 1867 there was a widespread belief among supporters of federation in the Maritime Provinces that the Maritime Provinces would become the manufacturing centre for the new Dominion, and up to 1890 it would seem that, in part at least, these expectations were being realized. Employment and production in manufacturing in Nova Scotia had more than doubled since 1870, in New Brunswick employment and production were both over 40% more than they had been in 1870. Although reliable figures for the earlier years are lacking for Prince Edward Island, the Island seems to have been sharing in the expansion. Much of the expansion was in village industries of the artisan or semi-artisan type - carding and spinning, black-smithing and metal-working, tanning and leather-working - but there was also in both New Brunswick and Nova Scotia a considerable expansion in saw milling, as well as the beginning of a
(1)
factory system in textiles.

Since 1890 profound changes have taken place. In 1935 figures of employment in manufacturing in Nova Scotia and New Brunswick were about half those given for 1890, while in Prince Edward Island they were only about one-seventh of the

(1) See Table 38 in Appendix.

(2)
total of 1890. In Nova Scotia employment in manufacturing in 1935 was only slightly higher than in 1870, while in New Brunswick it was about 25% lower than in 1870. Though the figures for employment are not strictly comparable because of changes in the Bureau's definition of a manufactory and in the method of compilation, the general change is unmistakable.

The figures of employment taken alone are quite misleading. The net value of production was much greater in 1935 than in 1890; in New Brunswick it was more than 250% of that of 1890 and almost 400% of that of 1870; in Nova Scotia it was almost 250% of that of 1890 and almost 550% of that of 1870. Only in Prince Edward Island was the net value of production lower than in 1890, and here about one-third lower. It is also worth noting that the drop in employment coupled with the increase in production was characteristic of all important groups of manufacturing establishments in New Brunswick and Nova Scotia, with the exception of the vegetable products group for New Brunswick in which both employment and production were higher in 1935.

These statistics point to one very great change in manufacturing since 1890; namely, the passing of village industries of the artisan or semi-artisan type, and the rise of the large unit manufactory. The tendency towards concentration of manufacturing units within the Maritime region was most marked during the period 1890 to 1910, and for the decade 1890 to 1900 the capital invested in manufacturing increased from \$38 million to \$57 million. Since 1900 the number of establishments appears to have remained fairly constant, but

(2) See classification of occupations in Bureau of Statistics' The Maritime Provinces in their Relation to the National Economy of Canada, p. 14.

the capital invested is today at least from four to five times as great as it was in 1900.⁽³⁾ Manufacturing is still highly decentralized in the Maritime region, particularly in the lumber industry, in the dairy products industry, and in fish curing and canning. This condition is due largely to the topography of the region and to the variety and distribution of the resources. Since 1890 there has been a trend in the Maritime Provinces towards the concentration of industries in the larger centres and towards the urbanization of the population, but this trend has not been nearly so marked as in Central Canada. However, the process is likely to be quickened by motor transportation assisted by an extensive highway system. Already the effects of this new factor seem apparent in the growing concentration in the dairy products industry and in the baking industry.

It ought to be noted, too, that many manufacturing plants in the Maritime region have been closed down, not because of competition from other and stronger Maritime firms, but because of competition from central Canadian industries. This has occurred notably in the textile industry in both New Brunswick and Nova Scotia, the boot and shoe industry in Nova Scotia, and some of the lighter iron and steel industries that were developing in the period 1900 to the War. Textile industries and some industries in the lighter secondary steel goods in both provinces, and a small shoe industry in New Brunswick, still survive, but in these, as in other Maritime industries that market their goods in other parts of Canada, the tendency is to manufacture high-grade specialty products. The eclipse of certain Maritime industries by stronger units in Central Canada resulted largely from conditions similar to those that brought about the eclipse of certain Maritime industries by other Maritime industries - the economic advantages of location near the larger markets, of larger units of production, of access to

(3) See The Maritime Provinces in their Relation to the National Economy of Canada (Bureau of Statistics, 1934) p. 73.

cheaper raw materials and cheaper power, or of better or cheaper facilities of transportation. The growth of the larger industrial units and the concentration of these units in larger industrial centres were merely two aspects of the general evolution of industry.

Since 1890, the Maritime Provinces have failed to participate to the same extent as central Canada in industrial expansion. Although the investment of capital in manufacturing has increased fairly steadily in the Maritime Provinces, and although production is much greater than it was a half century ago, the investment of industrial capital and the increase in industrial production has taken place in central Canada at a much more rapid rate than in the Maritime region, particularly during the period since the War. This is borne out by the
(4)
following table:

TABLE VIII

INVESTMENT AND PRODUCTION IN MANUFACTURING
IN THE MARITIMES AS PERCENTAGE OF ALL CANADA

	<u>Percentage Capital Investment</u>	<u>Percentage Gross Production</u>
1870	15.4	13.4
1880	12.5	13.0
1890	10.9	12.6
1900	12.8	9.5
1910	9.4	7.8
1920	7.1	7.0
1930	5.3	4.5
1935	5.1	4.5

This failure of the Maritime Provinces to keep pace with the industrial expansion of central Canada is clearly evident by 1910 and becomes more pronounced after 1920. In the expansion of heavy industry early in the century the Maritime Provinces,

(4) Based on Bureau of Statistics figures - The Maritime Provinces in their Relation to the National Economy of Canada, 1934, p. 71.

or rather Nova Scotia, led the way, but the Maritime Provinces did not participate extensively in the remarkable expansion of the last quarter century in the lighter industries, particularly those industries manufacturing consumers' goods, for example, packaged and canned foods, the newer textiles, electrical appliances, house furnishings, motor cars, and radios. The large population in Central Canada attracted industries interested in the mass production of consumers' goods much more than did the small and more scattered population of the Maritime region. Combined with the advantage to central Canadian producers of proximity to a large local market was the additional advantage over Maritime producers of a shorter haul to the expanding market of Western Canada.

It has sometimes been assumed that the concentration of population in Central Canada and the more rapid industrialization of the region have been due largely to the customs tariff. The importance of the customs tariff in this respect is difficult to assess but there were certainly other, and probably more powerful, influences. The Central Provinces have a much larger area and much more arable land. They are rich in forests and mineral wealth and have a large hinterland upon which to draw for trade. They have an abundance of cheap hydro electric power, and, although they have no coal, parts of Ontario are in fairly close proximity to the coal fields of Pennsylvania and West Virginia. The favourable position of the Central Provinces was evident even before Confederation, as is made fairly clear by the population figures. In 1871, Quebec and Ontario together had nearly four times as many people as the Maritime Provinces. In many respects the industrialization of Central Canada is but an overflow of the development south of the border. South of the lower Great Lakes industrial expansion in the past quarter century has proceeded at a pace perhaps more rapid than anywhere else in the world. This region is today the world's largest industrial

area. Its economic roots are primarily Pennsylvania and West Virginia coal and the high quality easily-worked iron of Wisconsin. With these must be included other raw materials, notably Canadian nickel, and power resources other than coal, such as hydro electric power, and oil piped from the southern midwest states. Moreover, the whole region has as tributary markets the great western wheat plains. Much of the industrial development that has taken place on the Canadian side of the Great Lakes has resulted from borrowing techniques from industries across the border, or from the establishment of branch plants by American firms. The tariff no doubt encouraged this migration of industry across the border, but the Canadian side of the Great Lakes is geographically a part of the same region as the American side, and it is probable that considerable industrial development would have taken place, tariffs or no tariffs. The net effect of this expansion is, however, that the Maritime region has fallen far behind central Canada in industrial expansion, and is now on balance, as against Central Canada, a heavy importer of manufactures, especially consumers' goods.

Although industrial expansion in the Maritime region has not kept pace with that of Central Canada, it has not been entirely absent. But, since the War, expansion has been confined mainly to those industries processing natural resources, whereas in the iron and steel group the general trend has been downwards. There has also been considerable expansion in such industries as sugar refining and its subsidiary the candy industry, oil refining and the manufacturing of specialty textile products. The national policy of protection must be given considerable credit for the establishment of, and later for the preservation of, the steel industry and the textile industry, and, though to a smaller degree, for the development of the sugar refining and the oil refining industries. These industries

find their markets almost exclusively within the Dominion, and there can be little doubt that the protective tariff, notably in the case of coal and steel, has increased urbanization and has thus built up substantial local markets for dairy and farm products, for fisheries products, and for lumber and other forest products.⁽⁵⁾

SERVICE INDUSTRIES

One important change that has taken place largely since 1890 has been the concentration in Central Canada of control over many Canadian-wide service industries. In 1867 Halifax and Saint John, and to a lesser extent Charlottetown, were small metropolitan communities supplying banking, insurance, brokerage, and distributive services for the hinterland. The relation of these services to export trade is illustrated by the extension of banking services by Halifax banks to Cuba and the West Indies, services which are still carried on by Canadian banks. As long as the sailing ship remained supreme the influence of the three centres was contested by strong outports such as Yarmouth, but with the decline of sail and the rise of steam, and with the development of railroads, the outports declined and the influence of the three larger centres, but particularly of Halifax and Saint John, increased. But in the past half century Halifax and Saint John have largely given place to Montreal and Toronto as centres of service industries for the Maritime region. Maritime banks have been absorbed by central Canadian banks or have moved their principal places of business to Central Canada.⁽⁶⁾ With the centralization

(5) See Report of Prof. H.A. Innis in Report of Royal Commission of Economic Enquiry for Nova Scotia, 1934.

(6) The Bank of Nova Scotia still maintains its official head office at Halifax, but has moved its working head office to Toronto.

of banking, national insurance companies, especially in the field of life insurance, have largely superseded local companies, (7) and national trust and loan companies have disputed the field of trust and mortgage business with local companies. Most of the brokerage business, too, has passed to branch offices of central Canadian firms, and the shipping business to the branch offices of international shipping lines. In the post-war period local railway lines have been amalgamated with national systems, and virtually all railway business in the area is now directed from Montreal. In very recent years central Canadian chain stores, department stores and grocery stores in particular, have also invaded the region. Centralization of control and the concentration of that control in Central Canada have gone much farther in the principal service industries than in the manufacturing industries.

Effects of Centralization

The concentration in Ontario and Quebec of industries or of industrial control - whether the industries are manufacturing commodities or rendering services - may have meant loss to some Maritime manufacturers or Maritime service industries. On the other hand, the mere fact that an industry from outside the region, or under outside control, succeeds in ousting a local industry is strong evidence that the successful industry is producing better or cheaper goods or services, and, to the extent that this is so, the consumer obviously benefits. Had the Maritime Provinces remained outside Confederation, or had Canada followed a free trade policy, it is

(7) For a time Boston and other New England insurance companies appear to have competed strongly in the Maritime region, and it seems evident today that companies from this area have a larger share of the business than in any other region in the Dominion.

doubtful whether service and manufacturing industries in the Maritime Provinces would be in a stronger position today than they now are. On the other hand, those industries manufacturing raw materials for export would likely be better off, provided that more rapid exploitation had not led to the exhaustion of forest and other natural wealth.

It should be recognized, however, that centralization of manufacturing or service industries has tended to produce a monopolistic or semi-monopolistic condition in certain industries, and that this has often been enhanced by tariff protection. When a condition such as this arises, it may permit and encourage rigidity of prices in the commodities or services that the industry has to offer. In periods of depression industries in this favourable position are able to maintain prices, and thereby to force the less protected industries, especially those producing for export markets, to carry a disproportionate share of the burden of readjustment. There can be little doubt that the inequality of burdens between industries producing for the domestic market and those producing for the export market was intensified by the tariff increases of 1930 and 1931. In so far as industries producing for the domestic market were concentrated in central Canada the inequality was not merely an inequality between industries but also an inequality between regions. There are limits, of course, beyond which differences in the price structure tend to right themselves. As prices in the more exposed industries decline, these industries and those dependent upon them are unable to maintain their volume of purchases of the goods produced by the more sheltered industries, which in time has the effect of forcing down prices in the sheltered industries.

It is sometimes alleged that centralization of financial institutions has drained off capital that would otherwise be available for investment in the Maritime Provinces. It is argued that capital tends to flow to those places and into those industries where most profit, combined with safety, can be had; that, even had centralization of financial institutions not taken place, capital would have flowed out of the Maritime Provinces to the newer areas where exploitation of natural resources was more rapid and industrial possibilities were more numerous; and that had the possibilities of profits in the Maritime Provinces been as great as in other regions, capital would have been invested there by national institutions as readily as by local institutions. On the other hand, it is argued that national institutions are little interested in Maritime enterprises, which are predominantly of small size; and that locally controlled institutions, owing to local sentiment and knowledge of local conditions, would more readily invest in local enterprises.

The establishment elsewhere of head offices of service institutions and of manufacturing firms supplying the Maritime market has meant that profits from sales of goods and services to the Maritime region tend to "pool up" outside the Maritimes. Salaries of head office executives and corporation profits swell income tax returns of the central region. Also, the central region reaps relatively larger inheritance taxes because estates tend to grow up in the vicinity of head offices, where the more highly paid officials are employed. These influences are, of course, offset to some extent by the returns from investments of Maritime people in centralized enterprises; but, on balance, the taxpaying capacity of the Maritime region, more particularly in the field of income and inheritance taxes, is lessened.

IV. The Maritime Region and Public Finance.

Because of the age, the relatively small area, and the early settlement of the Maritime Provinces, this region has long since reached the limits of extensive development, development that depends upon the opening up of new areas or the discovery of new natural resources. The Dominion as a whole seems now to have reached a similar position. Whereas the Dominion to as late as 1929 was primarily concerned with the opening up of new areas and with the provision of capital equipment for the expansion that came with the opening up of new areas and with the exploitation of new natural resources, it must now be primarily concerned with the more intensive development and fuller utilization of its known natural resources. This change in circumstances for the Dominion ought to facilitate accommodation of the economic policy of the Dominion government with the economic policies of the governments of the Maritime Provinces, because the national economic policy will in future have objectives similar to the objectives that have for some time been dominant in the economic policies of the Maritime Provinces.

In 1913 the production of coal and pig iron in the Maritime Provinces reached its peak, the peak in lumbering had just passed, and the fisheries had reached their peak about fifteen (1) years before. The Maritime economy had developed in an era of rapidly expanding international trade and, later, of rapid expansion within the Dominion. In this development it had become highly vulnerable to external shocks. The lumber and fishing industries were predominantly export industries. The steel and iron industries were largely dependent on the precarious market for capital goods for railways. The coal industry was intimately related to iron and steel. In the coal industry and in the lumber industry the more accessible resources were being depleted. The rapid expansion of international trade and the rapid economic development within Canada came to an end with the Great War. Since the War, the problem of

(1) 1898 was the all-time high for fisheries production in value, if corrected price changes are applied. See the Maritime Provinces in their Relation to the National Economy of Canada, p.53.

the Maritimes has been fundamentally that of readjustment to rapidly changing world conditions, in which their historic staples, lumber and fish, have had to face severe competition and rising trade barriers. The region has also had to readjust itself to a rapidly changing national economy during a period in which the demand for capital goods, such as railway equipment, has played a much smaller part, and in which centralization in the manufacturing and service industries has been drawing the region into closer economic unity with the nation as a whole.

Since the discovery of significant new resources does not seem probable, the need now for the three Maritime Provinces is (as was pointed out with respect to Nova Scotia by the Royal Commission of Economic Enquiry, 1934) for intensive development, for the development of specialties and high-quality products, for the fuller utilization of resources and improved methods of marketing, and for the conservation of existing resources. Such needs raise special problems for the Dominion government as well as for the provincial governments.

Summary and Conclusions.

1. Developmental Services

The economy of the Maritime Provinces calls for increased developmental services if this region is not to fall behind the rest of Canada. The economy is highly complex and this complexity is increased by the fact that in most industries in the Maritime Provinces the producing unit tends to be small. This applies to agriculture, fishing, and lumbering, and, to a large extent also to manufacturing, since here units tend to be small by comparison with central Canada. These circumstances increase the difficulty of improving technique, of effecting standards of grading, of expanding markets, and of conserving resources; and tend to shift the burden from individual producers or groups of producers to governments, which alone have the authority and resources to effect conformity, or to organize

and supply essential services. Under the present distribution of powers between the provinces and the Dominion much of this burden must fall upon provincial governments. Moreover, the complexity of many of the economic and social problems calls for a variety of remedial policies which only the provincial governments can be expected to formulate and execute successfully. The governments of the Maritime Provinces have already undertaken substantial developmental projects in the field of electric power and, more recently, in extended highway development. Both ventures have very greatly increased the public debt. Further services may add seriously either to debt or to current expenditures, which would increase the financial load.

There are, however, many developmental problems quite beyond the provincial governments, either because of financial or jurisdictional reasons. As Professor Mackintosh's study for the Commission points out, the Dominion government has often been responsible for developmental policies designed to aid particular regions. Aid for the construction of railways, canals, and harbours, and special freight rates, are examples. Dominion intervention has succoured the coal industry; and it may well be asked whether Dominion intervention to assist the lumber industry, the fishing industry, and export branches of agriculture, to find new markets or to improve marketing practices might not equally serve the national interest. These industries have suffered quite as severely as, if not more severely than, the coal industry, and it should be remembered that on these export industries the burden of the tariff tends to fall most heavily.

There is also a strong case for more effective administration in, and better co-operation between, federal and provincial departments. The large range of natural resources, from

mineral to agricultural, to forest, and to fishery, and the importance of the industries built upon each of these main groups of resources bring the Maritime producers directly, or indirectly through their governments, into close touch with many federal departments. The interest of the Maritimes in so many external markets heightens their interest in governmental services rendered to traders, and in the personnel and organization of federal departments. Very often a comparatively small item in the trade of the Dominion is vital to some area in the Maritime Provinces. It is complained, for example, that an effort was not made in the Canadian-American trade negotiations of 1935, to obtain a reduction in the American tariff on dried cod, or, at least, to have imports of dried cod from Canada placed upon an equal footing with imports from other countries. Rightly or wrongly, this and similar failures are attributed to a lack of co-ordination of the various departments of the federal government and to an inadequate understanding of many Maritime problems that come under the jurisdiction of the various departments. The writer is in no position to pass judgment on the validity or justice of these complaints, but it may be suggested that the particular needs of the different regions in Canada might be better taken care of were the work in some of the departments to be organized on a regional as well as on an industrial or functional basis.

2. The Social Services.

For years, the movement of population has been out of, rather than in to, the Maritime Provinces, with the result that the population is heavily weighted on the side of the old and the very young, leaving the number in the more productive age groups relatively lower than in other parts of the Dominion; and this in itself, other things being equal, lowers the average income. From these circumstances flow two results that have a direct bearing upon governments: first, there are relatively fewer tax-

prayers in proportion to population than in other regions of Canada; and, second, such an age distribution of population tends to increase the burden of social services, for example, old age pensions. Since 1929 American immigration restrictions and depressed conditions in other parts of the Dominion have kept in the Maritimes many of the young people who otherwise would have gone elsewhere. This circumstance may have beneficial economic and social consequences in the course of time, but for the present it tends to increase the burden of unemployment.

Closely allied to the problems arising out of the age distribution of the population are those of public health. The mortality rate in the Maritimes is high, and tuberculosis is exceptionally prevalent in many areas. This point has been
(2)
emphasized in certain briefs from the Maritime Provinces. In many of the rural areas, especially the fishing communities, there are inadequate medical, dental, and nursing services, and it seems clear that if health services comparable to those enjoyed in other parts of the Dominion are to be provided the governments will be obliged to shoulder at least part of the cost.

It may also be acknowledged that the educational systems of the Maritimes Provinces, which once led English-speaking Canada, have now fallen behind those of Ontario and (except for the depression period) those of Western Canada. The primary cause of this condition is the deficient financial resources of local school boards and provincial governments; and, if the Maritime Provinces are to raise the standard of their educational system to a level comparable to that of other parts of the Dominion, additional financial resources will have to be found.

There is also the problem of backward, or depressed, of what are called in England, "special" areas - areas that were built up on mining, or fishing and lumbering, or lumbering and agriculture, or some other combination of resources, and that have
(2) e.g. that of New Brunswick Government.

fallen behind, owing to exhaustion of mineral deposits, of forest resources, or of soil fertility, or owing to changes in industrial technique that have made competition more difficult. The struggle to make a living has been intensified, and it becomes practically impossible to maintain municipal, social, and welfare institutions in such areas at a level comparable to that in other parts of the same province or of the Dominion. It has been demonstrated in a few instances that there are still possibilities in these communities, but the young and aggressive have moved elsewhere and local leadership is lacking.

There is the further problem of cyclical unemployment, which bears very heavily on the coal and steel group of industries as well as upon export industries. As has been pointed out elsewhere, depression may be more disastrous to a small town dependent upon a single industry, such as coal, than to a diversified industrial centre.

3. Provincial Finance

All these conditions impinge upon provincial finance. They suggest that governments of the Maritime Provinces will be compelled at an early date to assume additional burdens for essential social services, and possibly for developmental purposes.

The per capita national income of the Maritime region as a whole has been for many years consistently lower than that of other parts of Canada, with the exception of the period 1931 to 1934 when that of the prairie region fell slightly lower. In part this is due to the presence of large groups in low-income occupations, such as fishing and subsistence farming; in part also to the fact that the Maritime Provinces are economically a relatively old region

(3) See Professor Mackintosh's study, Chapter VI, s. 2.

where large returns from the exploitation of virgin resources are no longer to be had, and where profits generally have a tendency to be low. Not only are there relatively large numbers in the lower income brackets, but also relatively few in the higher income brackets, which makes difficult the raising of substantial revenues by income or inheritance taxes.

The Fathers of Confederation expected the public domain to be an important source of provincial revenue, but, in the Maritime Provinces, there are no known substantial natural resources that remain untapped or old sources in this field from which revenues might be substantially increased. Royalties and other dues amounting in all to from \$500,000 to \$900,000 a year are collected by Nova Scotia from the public domain, mostly from coal; and from \$450,000 to \$1,200,000 by New Brunswick, mostly from the forests. But were the rate of these dues or royalties materially increased, the result might well be to handicap still further major industries that are facing serious competition in export or, as with the coal industry, internal markets.

In conclusion it may be stated that if the people of the Maritime Provinces are to enjoy the same social services and the same social amenities enjoyed by the people in other provinces of Canada, and if their relative economic position is not to be worsened, the Maritime governments will be called upon to increase considerably their expenditures on social services and developmental projects. These expenditures will be too great to be borne entirely by the provincial governments if the taxation burden is to be kept at all close to the taxation burden in other parts of the Dominion. The burden in excess of the capacity of the provincial treasuries will have to be met either by shifting to the Dominion government the burden of some of the new social services and developmental projects or by granting to the provincial governments greater taxing powers or larger federal subsidies. The final solution will probably be a compromise between these two alternatives.

TABLE NO. I.

PERCENTAGE OF TRADE BY COUNTRIES

Year	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND	
	Imports	Exports	Imports	Exports	Imports	Exports
1831						
TOTAL	£1,529,910	£ 901,070	£ 603,870	£ 427,318	£ 63,825	£ 42,534
United Kingdom	37.9	14.4	50.0	62.3	23.6	26.3
British Possessions:						
North America	41.7	76.5	26.4	14.1	73.3	69.3
West Indies	-	-	10.5	17.0	2.8	3.1
Elsewhere	-	-	.3	1.5	-	-
TOTAL BRITISH TRADE	79.6	90.9	87.2	94.9	99.7	98.7
United States	-	-	12.8	4.2	-	-
Foreign Countries	20.4	9.1	-	.9	.3	1.3
TOTAL FOREIGN TRADE	$\frac{20.4}{100\%}$	$\frac{9.1}{100\%}$	$\frac{12.8}{100\%}$	$\frac{5.1}{100\%}$	$\frac{.3}{100\%}$	$\frac{1.3}{100\%}$
1847						
TOTAL	£1,031,955	£ 831,071	£1,129,755	£ 708,977	£ 143,647	£ 71,228
United Kingdom	32.0	8.6	52.1	79.1	39.8	45.1
British Possessions:						
North America	18.2	28.5	15.2	12.1	55.1	53.4
West Indies	2.8	24.4	.5	1.9	.2	.3
Elsewhere	.4	.8	-	-	-	-
TOTAL BRITISH TRADE	53.4	62.3	67.8	93.1	95.1	98.8
United States	30.0	33.1	29.7	6.4	-	-
Foreign Countries	16.6	4.6	2.5	.5	4.9	1.2
TOTAL FOREIGN TRADE	$\frac{46.6}{100\%}$	$\frac{37.7}{100\%}$	$\frac{32.2}{100\%}$	$\frac{6.9}{100\%}$	$\frac{4.9}{100\%}$	$\frac{1.2}{100\%}$

TABLE NO. I. (Continued)
PERCENTAGE OF TRADE BY COUNTRIES

Year	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND	
	Imports	Exports	Imports	Exports	Imports	Exports
1851	TOTAL	£1,105,529	£ 708,462	£ 980,300	£ 134,650	£ 68,816
	United Kingdom	38.9	4.3	46.8	38.0	18.7
	British Possessions:					
	North America	18.5	38.1	16.4	49.1	50.3
	West Indies	.7	25.7	.1	-	.5
	Elsewhere	-	-	.2	-	-
	TOTAL BRITISH TRADE	58.1	68.1	63.5	87.1	69.5
1856	United States	25.2	20.8	33.7	-	-
	Foreign Countries	16.7	11.1	2.8	12.9	30.5
	TOTAL FOREIGN TRADE	$\frac{41.9}{100\%}$	$\frac{31.9}{100\%}$	$\frac{36.5}{100\%}$	$\frac{12.9}{100\%}$	$\frac{30.5}{100\%}$
	TOTAL	£1,869,832	£1,372,958	£1,521,178	£ 356,561	£ 167,970
	United Kingdom	29.2	6.5	35.4	36.4	20.8
	British Possessions:					
	North America	19.2	34.0	14.1	48.6	61.2
1856	West Indies	3.4	17.8	.5	.3	1.2
	Elsewhere	-	-	.1	-	-
	TOTAL BRITISH TRADE	51.8	58.3	50.1	85.3	83.2
	United States	36.3	30.1	47.0	-	-
	Foreign Countries	11.9	11.6	2.9	14.7	16.8
	TOTAL FOREIGN TRADE	$\frac{48.2}{100\%}$	$\frac{41.7}{100\%}$	$\frac{49.9}{100\%}$	$\frac{14.7}{100\%}$	$\frac{16.8}{100\%}$

TABLE NO. I. (Continued)
PERCENTAGE OF TRADE BY COUNTRIES

Year	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND	
	Imports	Exports	Imports	Exports	Imports	Exports
1865						
TOTAL	£2,876,332	£1,766,139	£1,476,374	£1,153,068	£ 381,015	£ 291,545
United Kingdom	43.9	8.7	32.2	46.9	42.0	22.2
British Possessions:						
North America	11.1	19.8	20.3	13.9	32.8	33.2
West Indies	4.6	22.3	1.7	.7	1.3	1.9
Elsewhere	-	.7	.2	-	-	-
TOTAL BRITISH TRADE	59.6	51.5	54.4	61.5	76.1	57.3
United States	30.1	41.0	43.1	31.4	-	-
Foreign Countries	10.3	7.5	2.5	<u>7.1</u>	23.9	42.7
TOTAL FOREIGN TRADE	<u>40.4</u>	<u>48.5</u>	<u>45.6</u>	<u>38.5</u>	<u>23.9</u>	<u>42.7</u>
	100%	100%	100%	100%	100%	100%
1871						
TOTAL	£1,896,602	£1,135,811	£1,675,962	£ 946,117	£ 467,360	£ 270,127
United Kingdom	56.4	6.9	60.0	47.8	45.5	28.6
British Possessions:						
North America	9.8	9.0	4.5	3.1	41.7	42.4
West Indies	3.2	34.7	2.6	1.4	1.0	1.7
Elsewhere	-	.4	.3	-	-	-
TOTAL BRITISH TRADE	69.4	51.0	67.4	52.3	88.2	72.7
United States	24.5	28.8	28.9	<u>28.9</u>	11.5	26.1
Foreign Countries	6.1	20.2	3.7	18.8	.3	1.2
TOTAL FOREIGN TRADE	<u>30.6</u>	<u>49.0</u>	<u>32.6</u>	<u>47.7</u>	<u>11.8</u>	<u>27.3</u>
	100%	100%	100%	100%	100%	100%

TABLE NO. 2
VESSELS BUILT

Year	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
1825			120	23,893		
1826			130	31,620		
1827			99	21,806		
1828			71	15,656		
1829			64	8,450		
1830			52	9,242	34	2,388
1831			61	8,571	49	4,419
1832	113	8,510	70	14,081	44	4,359
1833	126	10,978	97	17,837	42	4,918
1834	127	10,067	92	24,140	36	4,814
1835	117	5,885	97	25,796	41	5,301
1836	137	10,893	100	29,643	36	4,524
1837	159	13,726	99	27,288	46	7,305
1838	209	18,411	122	29,167	48	7,631
1839	223	20,668	164	45,864	73	11,434
1840	239	33,559	168	64,104	80	13,119
1841	190	26,151	119	47,140	71	12,243
1842	-	-	87	22,840	65	8,952
1843	152	12,319	64	14,550	66	8,614
1844	-	-	87	24,543	74	5,773
1845	209	18,359	92	28,972	92	10,313
1846	251	24,200	124	40,383	84	12,283
1847	252	29,448	115	53,373	95	18,445
1848	197	22,952	86	22,793	73	10,634
1849	221	29,422	119	39,280	89	14,689
1850			86	30,356	93	14,367
1851			99	49,595	89	15,721
1852			118	58,399	76	10,748
1853	203	31,376	122	71,428	76	13,340
1854	244	52,814	135	99,426	106	24,111
1855	236	40,469	95	54,561	86	15,559
1856	208	39,582	129	79,907	51	22,781
1857	-	-	148	71,989	104	24,060
1858	151	16,366	75	26,263	69	13,073
1859	-	-	93	38,330	61	11,064
1860	233	20,684	100	41,003	66	12,636
1861	216	23,634	80	40,523	67	12,732
1862	201	39,383	90	48,719	80	18,418
1863	207	46,862	137	85,250	100	24,991
1864	304	73,038	163	92,605	119	33,330
1865	294	56,768	148	65,474	126	34,286
1866	300	53,955	-	-	127	31,932
1867	-	-	-	-	84	21,035
1868	249	47,672	84	24,419	75	18,666
1869	213	44,821	88	31,972	53	15,424

TABLE NO. 2 (Continued)

VESSELS BUILT

Year	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND	
	No.	Tonnage	No.	Tonnage	No.	Tonnage
1870	227	44,643	88	35,599	53	14,312
1871	146	44,307	108	33,353	52	13,172
1872	188	52,882	93	36,464	60	15,060
1873	176	63,001	104	42,701	-	-
1874	181	74,769	96	46,663	67	15,024
1875	193	84,810	83	47,966	91	26,041
1876	232	69,087	71	38,794	90	21,194
1877	234	50,530	64	33,115	67	15,373
1878	198	47,639	50	26,306	57	16,486
1879	133	50,975	67	32,135	28	7,444
1880	136	38,252	48	14,528	19	5,591
1881	135	43,290	62	20,725	18	2,863
1882	122	31,361	56	17,635	14	3,776
1883	200	37,226	76	20,008	13	3,730
1884	195	34,613	67	21,654	22	5,752
1885	133	28,167	47	15,207	21	4,982
1886	90	21,193	28	8,943	8	1,244
1887	77	14,266	32	6,950	14	1,686
1888	106	14,373	22	1,967	4	166
1889	124	13,312	42	3,207	16	1,544
1890	114	20,962	45	6,501	10	1,499

Sources: NOVA SCOTIA -

Years 1832 to 1849 inclusive - Report of Israel D. Andrews, 1851, op. cit. p. 388.
 Years 1853 and 1854 - Eighty Years Progress, op. cit. p. 693.
 Years 1855 to 1866 inclusive - Journals of the House of Assembly, Province of Nova Scotia.
 Year 1868 onward - Sessional Papers, Dominion of Canada.

NEW BRUNSWICK -

Years 1825 to 1865 inclusive - Journals of the House of Assembly, Province of New Brunswick.
 Year 1868 onward - Sessional Papers, Dominion of Canada.

PRINCE EDWARD ISLAND -

Years 1830 to 1873 inclusive - Journals of the House of Assembly, Province of Prince Edward Island.
 Year 1874 onward - Sessional Papers, Dominion of Canada.

TABLE NO.3

PERCENTAGES OF COMMODITY IMPORTS AND EXPORTS (a)

	NOVA SCOTIA		NEW BRUNSWICK		PRINCE EDWARD ISLAND		PROVINCE OF CANADA	
	Im-ports	Ex-ports	Im-ports	Ex-ports	Im-ports (Year 1852)	Ex-ports	Im-ports	Ex-ports
<u>1853</u>								
Agricultural Products	35.9	21.9	34.2	2.9	17.8	65.0	13.9	48.1
Fishery Prod.	8.0	35.9	2.3	5.3	3.0	10.1	1.2	1.8
Forest "	.7	16.2	2.8	82.1	.2	18.1	.3	48.2
Manufactures and Miscel- laneous Prod.	44.5	10.9	53.6	6.7	70.9	6.8	80.2	1.2
Mineral Prod.	1.7	9.4	2.6	2.0	1.2	--	1.9	.6
Wines and Liquors	9.2	5.7	4.5	1.0	6.9	--	2.5	.1
<u>1861</u>								
Agricultural Products	37.3	17.4	37.8	2.7	18.9	79.9	29.2	57.9
Fishery Prod.	8.1	41.3	1.8	5.9	5.0	9.7	1.3	2.6
Forest "	.9	15.7	2.1	76.4	4.4	7.4	1.2	35.7
Manufactures and Miscel- laneous Prod.	43.9	7.4	48.1	7.1	63.2	3.0	62.1	1.9
Mineral Prod.	1.3	12.4	3.3	7.4	2.3	--	4.2	1.8
Wines and Liquors	8.5	5.8	6.9	.5	6.2	--	2.0	.1
<u>1865</u>								
Agricultural Products	29.6	18.4	39.5	6.8	24.2	73.0	31.2	51.9
Fishery Prod.	2.7	39.3	1.5	7.5	4.6	17.6	1.2	2.1
Forest "	1.8	8.8	1.0	66.3	6.8	8.4	1.3	40.3
Manufactures and Miscel- laneous Prod.	57.8	11.7	47.4	13.3	55.3	.5	57.9	3.9
Mineral Prod.	1.7	15.5	3.6	5.1	3.5	.3	5.3	1.6
Wines and Liquors	6.4	6.3	7.0	1.0	5.6	.2	3.1	.2

(a) Unfortunately this table covers only three years, 1853, 1861, and 1865, and, unfortunately, these years are not well spaced for the purpose of the present study, but, at the time of writing, they were the only figures available, the compilations having been made several years ago in connection with an entirely different project. The table could be extended to at least as late as 1876 without fear of having the figures distorted by the inclusion of products from other provinces with the exports of the Maritimes.

TABLE NO. 4.

EXPORTS - TOTAL, AND TO THE UNITED STATES (a)
(thousands of dollars)

Nova Scotia			New Brunswick		Prince Edward Island		Canada	
Total	U.S.		Total	U.S.	Total	U.S.	Total	U.S.
1852	980	266	796	83	106	28	13,005	6,284
1853	1,078	277	1,072	121	117	24	19,531	8,936
1854	1,247	318	1,104	97	152	16	19,041	8,649
1855	1,472	481	826	123	147	33	23,703	16,737
1856	1,372	413	1,073	173	167	28	28,595	17,979
1857	1,393	...	917	158	134	50	24,066	13,206
1858	1,264	408	810	163	153	65	21,285	11,930
1859	1,377	456	1,073	236	178	89	22,677	13,922
1860	1,323	446	916	248	205	79	31,522	18,427
1861	1,154	304	947	175	163	48	33,061	14,261
1862	1,129	362	803	185	150	44	30,511	15,063
1863	1,309	373	1,029	259	209	106	35,374	18,426
1864	1,434	489	1,052	263	202	78	11,274	7,046
1865	1,766	723	1,153	361	291	124	35,996	21,340
1866	1,608	645	1,327	386	246	24	46,242	32,587

(a) The figures for the colony of Canada exclude coin and bullion, ships built for sale abroad, and short returns from inland ports, being estimates of unrecorded exports to the United States. The figures for the Maritime colonies also exclude coin and bullion and ships built for sale abroad, and there does not appear to have been any attempt to estimate the unrecorded exports. It seems legitimate to assume that for both regions efficiency in collecting trade returns increased during the period and much of the incentive to smuggling had been removed.

TABLE NO. 5

POPULATION - WITH PERCENTAGE CHANGES

Census	Nova Scotia		New Brunswick		Prince Edward Island		Maritimes	
	000	%	000	%	000	%	000	%
(i)								
1851	276.9	36.7	193.8	24.1	62.7	33.2	533.3	31.4
					(Year 1848)			
1861	330.9	19.5	252.0	30.4	80.9	29.0	664.4	24.6
1871	387.8	17.2	285.6	13.0	94.0	16.3	767.4	15.5
1881	440.6	13.6	321.2	12.5	108.9	15.8	870.7	13.5
1891	450.4	2.2	321.3	--	109.1	.2	880.7	1.1
1901	459.6	2.0	331.1	3.1	103.3	-5.3	894.0	1.5
1911	492.3	7.1	351.9	6.3	93.7	-9.2	938.0	4.9
1921	523.8	6.4	387.9	10.2	88.6	-5.5	1,000.3	6.6
1931	512.8	-2.1	408.2	5.2	88.0	- .6	1,009.1	.9
	Upper Canada (Ontario)		Lower Canada (Quebec)		Upper and Lower Canada (Ontario and Quebec)		Dominion of Canada	
	000	%	000	%	000	%	000	%
1851	952.0	95.5	890.3	31.9	1,842.3	58.5		
1861	1,396.1	46.6	1,111.6	24.9	2,507.7	36.1		
1871	1,620.9	16.1	1,191.5	7.2	2,812.4	12.1	3,689.3	
1881	1,926.9	18.9	1,359.0	14.1	3,285.9	16.8	4,324.8	17.23
1891	2,114.3	9.7	1,488.5	9.5	3,602.9	9.6	4,833.2	11.76
1901	2,182.9	3.2	1,648.9	10.8	3,831.8	6.4	5,371.3	11.13
1911	2,527.3	15.8	2,005.8	21.6	4,533.6	18.3	7,206.6	34.17
1921	2,933.7	16.1	2,361.2	17.7	5,294.9	16.8	8,787.9	21.94
1931	3,431.7	17.0	2,874.3	21.7	6,305.9	19.1	10,376.8	18.08

(i) The percentages shown in 1851 are: for Nova Scotia, the increase from 1838 to 1851; for New Brunswick, the increase from 1840 to 1851; for Prince Edward Island, the increase from 1841 to 1848; for Upper Canada, the increase from 1842 to 1851; for Lower Canada, the increase from an estimate for 1842, based on the census of 1844, to the census of 1851.

PIG IRON PRODUCTION (a)

(Long Tons)

<u>YEAR</u>	<u>NOVA SCOTIA</u>	<u>CANADA</u>
1889	19,008	23,144
1893	41,493	49,953
1899	27,768	91,913
1900	25,119	86,228
1901	134,938	244,979
1902	211,825	319,555
1903	179,684	265,969
1904	146,864	270,941
1905	233,048	469,023
1906	281,257	534,295
1907	327,193	582,110
1908	314,859	563,245
1909	308,375	676,037
1910	312,756	714,997
1911	348,430	819,228
1912	379,459	905,881
1913	428,632	1,008,006
1914	202,725	699,254
1915	375,246	815,871
1916	419,692	1,043,979
1917	421,560	1,045,071
1918	371,313	1,067,456
1919	254,542	819,447
1920	296,869	973,568
1921	151,343	593,829
1922	120,769	382,967
1923	277,654	879,822
1924	177,078	593,049
1925	201,795	570,766
1926	250,238	757,317
1927	249,549	709,697
1928	302,756	1,037,727
1929	310,801	1,080,160
1930	212,636	747,178
1931	101,393	420,038
1932	30,697	144,130
1933	118,514	227,317
1934	133,360	404,995
1935	208,002	599,875
1936	257,158	678,672

(a) The figures are available for each year from 1887 to the present, but prior to 1900 only the figures of highest production in year have been shown.

TABLE NO. 7

EXPORTS OF APPLES FROM NOVA SCOTIA. (a)

Annual Average

	<u>Barrels</u>
1880-1885	30,320
1886-1890	83,356
1891-1895	118,552
1896-1900	261,879
1901-1905	377,225
1906-1910	496,655
1911-1915	786,633
1916-1920	932,957
1921-1926	1,286,172
1928-1932	1,037,081
Year 1933	2,267,592
" 1934	1,669,162
" 1935	1,375,182
" 1936 (Estimate)	865,090.

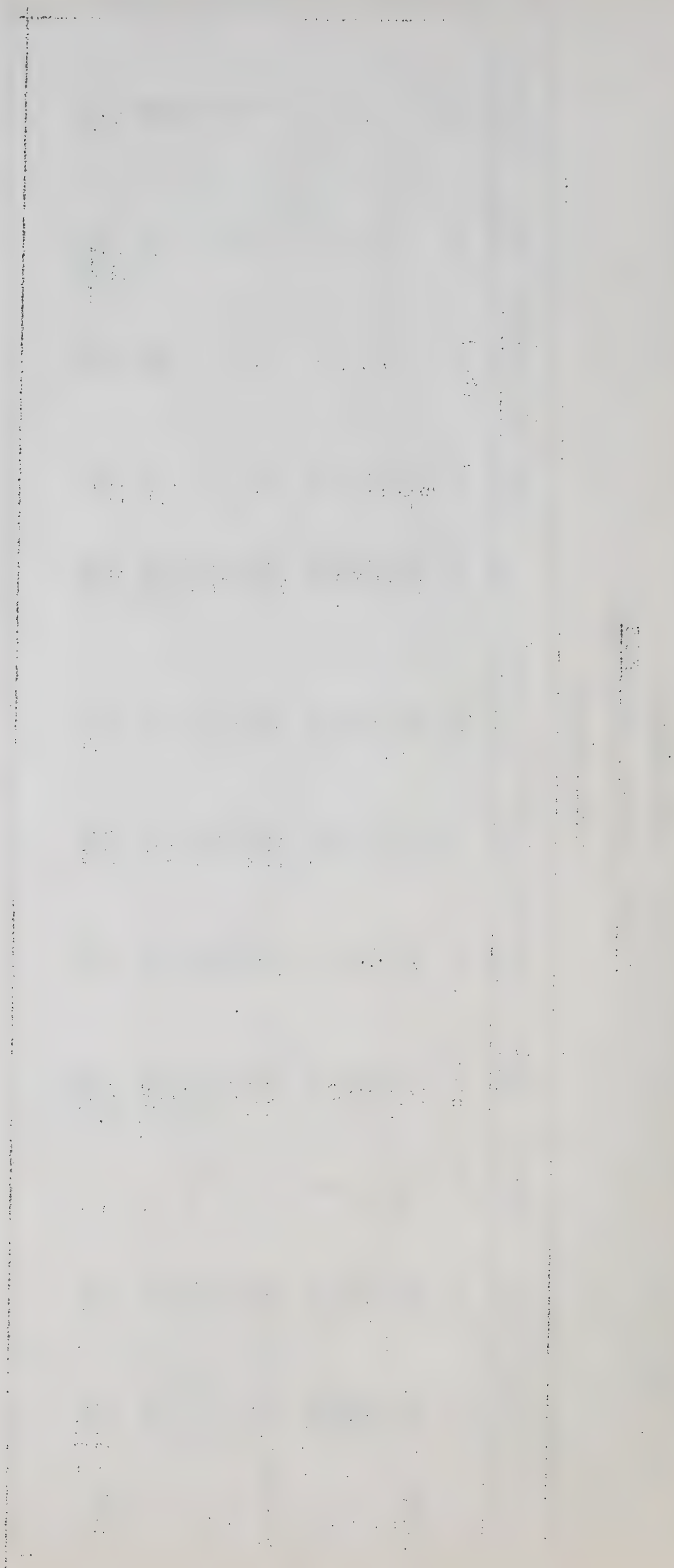
(a) The figures in this table up to 1926 are taken from Report of the Apple Marketing Enquiry Committee, Halifax, 1927, p.7. The later figures are from Annual Reports of the Department of Agriculture, Province of Nova Scotia.

TABLE NO. 8

CANADA - EXPORTS OF POTATOES

(000 Omitted)

	Total	United Kingdom	United States	Newfound-land	Br. West Indies	St. Pierre et Miquelon	Cuba	Other Indies	Central America	South America	Other Countries
	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)	(bu.)
Total - 1876	221	1	15	103	75	5	17	5	-	-	-
" - 1880	1,423	444	579	156	154	12	68	10	-	-	-
" - 1885	661	-	379	129	110	8	31	4	-	-	-
" - 1890	1,459	-	1,053	76	143	21	164	1	1	-	-
" - 1895	1,379	1	773	63	195	22	316	8	1	-	-
" - 1900	681	1	44	27	173	26	363	46	1	-	-
Average-1901-05	1,140	2	532	49	184	19	337	13	2	1	1
" -1906-10	1,195	1	354	65	162	17	577	3	9	1	6
" -1911-15	1,186	21	259	97	162	15	606	-	2	3	21
" -1916-20	3,204	-	2,189	93	152	10	751	1	-	-	8
" -1921-25	3,716	74	1,555	117	190	12	1,740	-	-	-	28
" -1926-30	7,288	-	4,697	129	164	-	2,105	-	143	-	50
" -1931-35	2,774	-	1,689	125	334	6	531	12	23	3	49
Total - 1936	2,265	-	1,344	36	293	16	392	16	10	129	29
" - 1937	3,258	-	984	87	357	16	530	8	14	1,211	52



APPENDIX - TABLE NO. 9 (a)

NET VALUE OF PRODUCTION.
(Millions of dollars)

	Nova Scotia	New Brunswick	Prince Edward Island	Maritime Provinces	Ontario	Quebec	Canada
	\$	\$	\$	\$	\$	\$	\$
1920	185.3	115.3	24.4	325.0	1,399.6	962.4	3,681.9
1921	130.3	86.0	18.9	235.2	1,116.0	735.4	2,815.0
1922	115.4	86.7	17.1	219.2	1,154.3	724.9	2,939.3
1923	111.6	82.6	17.3	211.5	1,211.9	744.9	3,051.5
1924	96.1	78.3	18.1	192.5	1,217.8	730.0	3,018.2
1925	94.8	87.1	23.1	205.0	1,259.7	796.0	3,325.1
1926	124.2	91.0	26.3	241.5	1,371.7	869.6	3,640.4
1927	119.5	86.9	23.7	230.1	1,470.0	920.3	3,901.5
1928	144.3	85.4	23.1	252.8	1,572.8	979.7	4,122.5
1929	129.4	87.4	23.5	240.3	1,658.4	1,049.5	3,946.6
1930	109.8	74.1	15.4	199.3	1,406.4	881.9	3,335.6
1931	93.4	62.6	11.2	167.2	1,093.3	693.6	2,572.3
1932	70.9	54.1	10.3	135.3	884.8	557.7	2,104.9
1933	72.4	48.1	11.6	132.1	883.2	526.2	2,047.2
1934	88.6	60.9	11.6	161.1	1,037.7	619.0	2,422.3
1935	94.6	64.7	11.5	170.8	1,124.6	646.6	2,580.1

(a) Source: Dominion Bureau of Statistics Survey of Production
For 1933, 1934 and 1935 the figures as published by the Bureau
were adjusted to make them comparable with those for previous
years.

(a)
TABLE NO. 10

THE NATIONAL INCOME

Income paid out to Individuals

(Millions of Dollars)

	<u>Nova Scotia</u>	<u>New Brunswick</u>	<u>Prince Edward Island</u>	<u>Maritime Provinces</u>	<u>Ontario</u>	<u>Quebec</u>	<u>Canada</u>
	\$	\$	\$	\$	\$	\$	\$
1926	138.3	107.8	22.6	268.7	1,552.8	927.6	4,080.7
1927	146.2	109.2	24.2	279.6	1,640.9	970.7	4,246.2
1928	163.1	113.9	24.4	301.4	1,773.4	1,041.8	4,641.1
1929	169.0	121.4	24.6	315.0	1,857.6	1,101.9	4,718.6
1930	164.1	115.8	23.2	303.1	1,711.4	1,031.2	4,167.6
1931	142.0	99.0	17.5	258.5	1,492.7	881.1	3,525.0
1932	115.1	80.3	14.4	209.8	1,197.5	713.7	2,861.7
1933	108.0	75.4	13.7	197.1	1,103.2	652.8	2,632.3
1934	118.3	81.4	14.5	214.2	1,197.5	693.0	2,879.3
1935	129.6	85.9	15.3	230.8	1,294.7	749.3	3,116.5
1936	139.7	95.2	17.5	252.4	1,420.7	820.4	3,416.5

(a) D. C. MacGregor, J. B. Rutherford, G. E. Britnell, J. J. Deutsch, The National Income, A study prepared for the Royal Commission on Dominion-Provincial Relations.

TABLE NO. 11

PRODUCTION (a)
(In Long Tons)

Year	Steel Ingots		Steel Rails		Steel Wire	
	Canada	Nova Scotia	Canada	Nova Scotia	Canada	Nova Scotia
1920		361,742	227,848		193,011	
1921		203,662	266,170		73,146	
1922		122,880	125,866		140,014	
1923	881,533	297,842	206,861	63,081	172,379	31,384
1924	659,767	185,420	200,710	77,035	108,536	14,993
1925	752,503	251,699	193,478	36,638	125,720	26,339
1926	776,262	250,035	166,820	87,918	122,506	24,668
1927	907,945	297,637	235,683	108,847	115,245	23,757
1928	1,234,719	391,783	349,189	132,278	144,309	29,754
1929	1,378,024	407,062	383,002	141,046	142,589	28,948
1930	1,009,578	296,552	233,432	109,470	108,992	17,250
1931	672,109	172,529	140,145	76,424	78,133	11,090
1932	339,346	68,630	45,090		76,589	9,105
1933	409,979	124,134	67,835	46,699	88,692	10,579
1934	757,782	260,825	96,689	34,924	175,585	28,269
1935	941,527	208,769	109,198	53,058	183,469	34,346
1936	1,115,779	379,018	116,192	66,404	206,185	35,854
1937	1,402,882	427,104	77,618	39,140	216,154	106,499

(a) Prior to the dates shown in this table, provincial figures are not readily accessible. All the figures for steel ingots and the Dominion figures for steel rails and for steel wire are taken from Dominion Bureau of Statistics, Iron and Steel and Their Products but the Nova Scotia figures for steel rails and steel wire are taken from reports of the Department of Mines of that Province and are for the provincial fiscal years, whereas the Dominion figures are for the calendar years. The figures for 1936 and 1937 have been supplied by Mr. Losee of the Dominion Bureau of Statistics.

TABLE NO. 12. (a)

SHIPMENTS OF MEAT AND MEAT PRODUCTS

Shipped to: (1935)

	Prince Edward Island	Nova Scotia	New Brunswick	Total Maritime Provinces
	lbs.	lbs.	lbs.	lbs.
Beef	294,053	13,632,183	6,594,682	20,520,918
Veal	360	121,068	45,272	166,700
Mutton and Lamb	394	546,324	90,334	637,052
Pork	97,837	4,584,566	1,512,443	6,194,846
Lard, Pure	205,525	1,726,704	1,622,049	3,554,278
Lard, Compound	301,783	4,152,054	4,554,305	9,008,142
Miscellaneous	2,086,327	6,951,649	5,244,186	14,282,162
TOTAL	2,986,279	31,714,548	19,663,271	54,364,098

Shipped from: (1935)

	Prince Edward Island	Nova Scotia	New Brunswick	Total Maritime Provinces.
	lbs.	lbs.	lbs.	lbs.
Beef	4,900	112,961		117,861
Veal	2,841	4,281	21,591	28,713
Mutton and Lamb	5,900	3,401	139,396	148,697
Pork	52,587	21,242	56,777	130,606
Lard, Pure			452	452
Lard, Compound				
Miscellaneous	6,326	67,403	28,535	102,264
TOTAL	72,554	209,288	246,751	528,593

Recapitulation: (1935)

	Prince Edward Island	Nova Scotia	New Brunswick	Total Maritime Provinces.
	lbs.	lbs.	lbs.	lbs.
Meat and Meat Products shipped:				
To:	2,986,279	31,714,548	19,663,271	54,364,098
From:	72,554	209,288	246,751	528,593
Net Shipments To:	2,913,725	31,505,260	19,416,520	53,835,505

(a) See note following Table No. 13.

TABLE NO. 13.

SHIPMENTS OF LIVESTOCK

Net Shipments from: (1935)

	Prince Edward Island	Nova Scotia	New Brunswick	Total Maritime Provinces
	No.	No.	No.	No.
Cattle	1,405	1,881	7,113	10,399
Calves	1,917	1,983	6,568	10,468
Swine	4,617	468	-(1,694)	3,391
Sheep	934	872	4,005	5,811

SHIPMENTS FROM THE MARITIME PROVINCES
TO OTHER PROVINCES AND TO EXPORT MARKETS. (a)

(Year 1935)

	Net Shipments to Other Provinces	Shipments to Export Markets	Total
	No.	No.	No.
Cattle	260	10,139	10,399
Calves	9,293	1,175	10,468
Swine	-(966)	4,357	3,391
Sheep	4,401	1,410	5,811

(a) The figures in Table No. 12 are taken from supplementary data supplied through the courtesy of Dr. T. W. Grindley, Chief Agricultural Branch, Dominion Bureau of Statistics. All the Nova Scotia figures shown in Table No. 12, "Shipments from" are for exports; all the Prince Edward Island figures are for exports, except 4,155 pounds of miscellaneous products; but, of the figures shown for New Brunswick, all the veal, all the mutton and lamb, 4,760 pounds of pork, and 18,839 pounds of miscellaneous products were shipped to Quebec and Ontario. "Shipments to", Table No. 12, and the Recapitulation, Table No. 12, are self-explanatory. Import figures, of course are not included as it is impossible to obtain information pertaining to the ultimate destination of goods of this kind brought into the country, and the data are modified slightly by the figures in Table No. 13. In Table No. 13, as in Table No. 12, the figures exclude intra-maritime shipments. In compiling Table No. 13, the only deductions that it was necessary to make for shipments into the Maritime Provinces from elsewhere in Canada were twenty head of cattle to Nova Scotia, and 115 head of cattle and 4,932 head of swine to New Brunswick. To contrast the export market with the market in the rest of Canada for Maritime livestock, the figures in column four of Table 13, "Net Shipments from", are broken down into two classes: net shipments to other provinces in Canada and shipments to export markets, and are presented in the second part of Table No. 13. Of the export figures, New Brunswick accounts for about 70% of the cattle, Prince Edward Island for over 75% of the calves and over 90% of the swine, and Nova Scotia and Prince Edward Island account for all but one head of sheep. Because intra-maritime shipments are omitted, these tables ought not to be used as an index of any one of the Maritime Provinces.

TABLE NO. 14.

PERCENTAGE OF THE VALUE OF NET PRODUCTION IN EACH
INDUSTRY TO THE TOTAL NET VALUE OF PRODUCTION OF
EACH OF THE MARITIME PROVINCES, YEARS 1928 and 1934. (a)

	<u>Prince Edward Island</u>		<u>Nova Scotia</u>		<u>New Brunswick</u>	
	<u>1928</u>	<u>1934</u>	<u>1928</u>	<u>1934</u>	<u>1928</u>	<u>1934</u>
Agriculture	83.81	75.71	25.36	19.37	34.95	24.48
Forestry	3.38	4.81	6.95	8.48	26.19	22.61
Fisheries	5.17	8.43	8.10	8.66	5.86	6.27
Trapping	0.03	0.01	0.15	0.30	0.22	0.24
Mining			21.16	26.32	2.58	3.67
Electric Power	0.82	2.10	1.82	4.71	2.23	4.96
Construction	1.57	1.41	13.57	8.16	5.96	6.64
Custom & Repair	0.87	1.28	1.92	1.73	2.03	2.17
Manufactures, n.e.s.	4.35	6.25	20.97	22.27	19.98	28.96
	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>	<u>100.00</u>

(a) The figures contained in this statement are taken from
Survey of Production in Canada, published annually by the
Dominion Bureau of Statistics, Ottawa.

TABLE NO. 15

SEED POTATO CERTIFICATION

Field Inspection

Year	Acreage Passed Field Inspection			Percentage Passed of Total Acreage Entered for Inspection.			Percentage Passed of Total Acreage Planted			% in Maritimes of Total Acreage Passed in Canada	
	Canada		Maritime Ac.	P. E. I.		Maritime %	Canada		P.E.I. Provinces %	Maritime %	%
	Ac.	Ac.		Ac.	%		%	%			
1920	3,956	533		52.0	60.2		0.5	1.5			
1921	4,290	541		54.3	56.2		0.6	1.5			
1922	6,991	2,155		62.1	91.0		1.0	6.0			
1923	7,099	3,049		73.3	95.0		1.3	9.8			
1924	13,916	8,339		72.3	92.6		2.5	22.5			
1925	10,856	6,516		75.1	88.9		2.1	19.2			
1926	10,393	7,597	8,964	75.8	81.9	77.8	2.0	21.7	8.4	8.4	86.3
1927	23,875	19,915	22,024	75.6	80.2	78.0	4.2	40.6	17.2	17.2	92.2
1928	31,509	25,883	28,584	77.8	80.7	78.8	5.3	49.8	21.2	21.2	90.7
1929	24,307	18,257	20,327	75.9	80.6	78.1	4.5	42.5	17.1	17.1	83.6
1930	27,777	20,925	23,500	81.0	84.1	83.5	4.9	45.5	18.8	18.8	84.6
1931	32,592	21,778	27,157	84.8	87.5	87.8	5.5	40.3	19.8	19.8	83.3
1932	20,691	12,965	17,178	74.4	77.4	75.9	4.0	34.1	16.1	16.1	83.0
1933	18,602	11,237	14,681	76.4	76.2	75.8	3.5	30.0	13.9	13.9	78.9
1934	21,322	13,193	17,406	74.0	73.8	76.0	3.7	33.0	15.0	15.0	81.6
1935	16,751	10,444	13,750	82.2	86.2	85.5	3.3	31.6	14.0	14.0	82.1

TABLE NO. 16.

POTATOES - ACREAGE AND PRODUCTION.

(000's omitted)

	<u>Prince Edward Island</u>		<u>Nova Scotia</u>		<u>New Brunswick</u>	
	<u>Acreage</u>	<u>Yield</u> Cwt.	<u>Acreage</u>	<u>Yield</u> Cwt.	<u>Acreage</u>	<u>Yield</u> Cwt.
Average, 1925-29	42	4,481	30	2,903	45	5,189
Year						
1929	43	3,820	31	2,872	45	4,646
1930	46	4,799	31	3,338	48	5,853
1931	54	4,884	23	1,946	60	6,341
1932	38	3,188	21	2,122	48	3,856
1933	38	3,760	21	1,866	47	5,394
1934	40	4,824	22	2,453	54	6,938
1935	33	3,045	21	2,086	44	4,383
1936	35	3,941	21	1,957	45	5,683
1937	36	3,471	22	1,185	50	5,773

	<u>Quebec</u>		<u>Ontario</u>		<u>Canada</u>	
	<u>Acreage</u>	<u>Yield</u> Cwt.	<u>Acreage</u>	<u>Yield</u> Cwt.	<u>Acreage</u>	<u>Yield</u> Cwt.
Average, 1925-29	161	13,666	161	9,796	552	44,747
Year						
1929	162	15,429	148	8,484	544	39,930
1930	166	13,491	159	10,965	571	48,241
1931	146	16,897	171	12,042	592	52,305
1932	133	11,475	156	9,516	522	39,416
1933	133	13,444	158	10,112	528	42,745
1934	143	14,244	164	11,830	569	48,095
1935	128	11,338	149	7,878	507	38,670
1936	131	12,336	145	9,280	502	39,614
1937	143	12,458	151	10,090	531	43,547

TABLE NO.17
MINERAL PRODUCTION
NOVA SCOTIA

	YEAR 1928		YEAR 1937	
	Quantity 000	Value \$000	Quantity 000	Value \$000
<u>METALLICS:</u>				
Gold (Fine oz.)	1.3	26.7	19.6	687.2
Silver (Fine oz.)	.1		28.1	12.6
Copper (lb.)			188.5	24.7
Lead (lb)			435.7	22.3
Zinc (lb)			5,811.7	284.9
Total Metallics		<u>26.7</u>		<u>1,031.6</u>
<u>NON-METALLICS:</u>				
Fuels				
Coal (tons)	6,743.5	<u>27,427.6</u>	7,227.8	<u>25,629.5</u>
Other Non-Metallics				
Gypsum (tons)	1,013.3	1,850.2	921.8	974.4
Grindstones (tons)				.4
Diatomite (tons)	.2	4.2		15.4
Quartz (tons)	7.4	28.0	11.7	14.1
Silica Brick (M)	1.6	69.2	2.9	121.1
Salt (tons)	19.6	118.3	47.9	216.4
Barytes (tons)		<u>2.8</u>		
Total other Non-Metallics		<u>2,072.8</u>		<u>1,341.8</u>
<u>CLAY PRODUCTS:</u>				
Brick (M)	9.0	138.1	5.5	76.8
Fireclay and other clay (tons)	2.6	9.7	1.2	3.8
Hollow Blocks (tons)	11.3	132.6	4.3	38.9
Fireclay blocks and shapes		1.1		.8
Drain Tile (M)	.1	3.3	.1	3.0
Sewerpipe, copings, flue linings, etc.		211.8		279.1
Other Clay Products				<u>2.0</u>
Total Clay Products		<u>496.6</u>		<u>404.4</u>
<u>OTHER STRUCTURAL MATERIALS:</u>				
Lime (tons)	36.2	175.9	17.7	150.1
Sand & Gravel (tons)	296.3	111.1	2,955.2	1,452.9
Stone (tons)	121.2	<u>213.8</u>	226.7	<u>299.3</u>
Total Other Structural Materials		<u>500.8</u>		<u>1,902.4</u>
<u>GRAND TOTAL</u>		<u>30,524.0</u>		<u>30,309.7</u>

TABLE NO. 18
MINERAL PRODUCTION
NEW BRUNSWICK

	<u>YEAR 1928</u>		<u>YEAR 1937</u>	
	Quantity 000	Value \$000	Quantity 000	Value \$000
<u>METALLICS:</u>				
Manganese Ore (tons)			.1	.6
Total Metallics			.1	.6
<u>NON-METALLICS:</u>				
Fuels				
Coal (tons)	207.7	869.1	351.1	1,134.7
Natural Gas (M.cu.ft)	661.0	324.3	576.7	283.9
Petroleum Crude (bbls)	8.0	21.4	18.1	25.5
Total fuels		1,214.8		1,444.2
Other Metallics:				
Gypsum (tons)	75.0	501.3	36.9	131.7
Grindstones (Including Pulpstones) (tons)	1.6	80.5	.3	12.1
Manganese, Bog (tons)	.4	2.2		
Total Other Non-Metallics		583.9		143.9
<u>CLAY PRODUCTS:</u>				
Brick (M)	2.0	31.7	4.5	66.5
Fireclay & Other Clay (tons)	.1	1.8		1.7
Hollow Blocks (tons)			.6	4.6
Fireclay blocks & shapes		1.6		.8
Drain tile (M)			.4	18.5
Sewerpipe, copings flue linings, etc.				.4
Pottery		37.0		32.8
Total Clay Products		72.2		125.1
<u>OTHER STRUCTURAL MATERIALS:</u>				
Lime (tons)	11.3	130.8	19.9	150.4
Sand & Gravel (tons)	491.5	54.2	1,418.5	790.3
Stone (tons)	46.3	143.0	55.5	134.0
Total Other Structural Materials		327.9		1,074.7
<u>GRAND TOTAL</u>		<u>2,198.9</u>		<u>2,788.4</u>

TABLE NO. 19
EXPORTS - 1865 - MINERALS AND MINERAL PRODUCTS

	Nova Scotia	New Brunswick	Prince Edward Island	Total Maritime Colonies	Colony of Canada
Coal	1,253,650	165,402	146	1,419,198	
Gypsum	()	9,744		()	
Lime	(45,350)	12,965	163	(68,664)	2,806
Limestone	()	442		()	
Marble and Tombstones		935		()	
Stone, including brick				()	
Stone, Building and Grindstone	19,382	45,553		(74,099)	16,862
Slate		420		()	
Tiles		25		()	
Brick, fire and building		7,657		()	
Fireclay		100		()	
Cement		27		()	
Chalk		180		180	
Shale		3,123		3,123	
Copper and Copper Ore		652		652	468,613
Manganese		9,901		9,901	
Tin, Spelter, etc.		7,785		7,785	
Mineral Ores		3,375		3,375	
Mineral Oils					21,155
Salt	46,580	20,329	2,519	69,428	
TOTAL	1,364,962	288,615	2,828	1,656,405	509,436

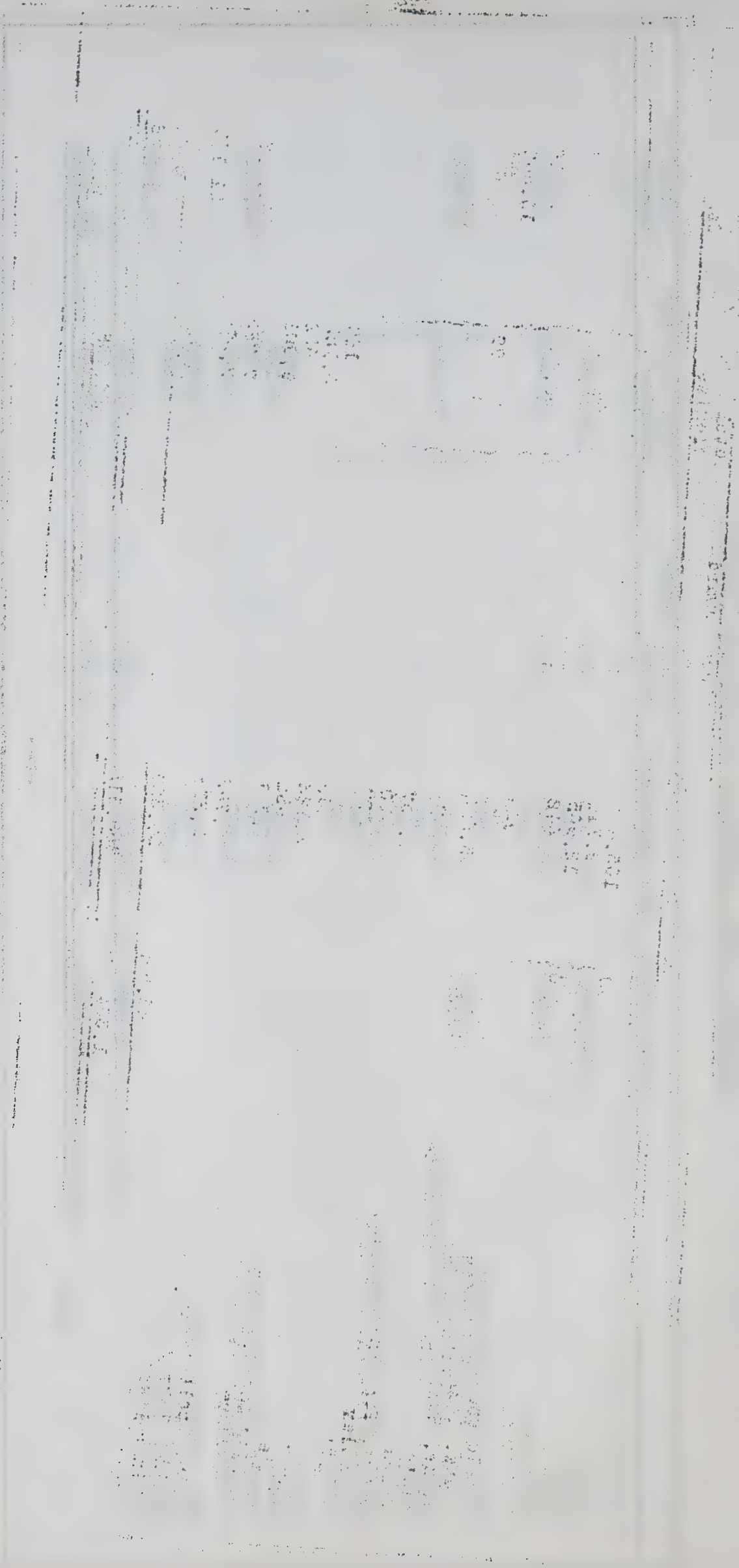


TABLE NO. 20

GYPSUM PRODUCTION (a) 1874 - 1936

Five Year Averages

	Nova Scotia (000 Tons)	New Brunswick (000 Tons)	Total Maritime Provinces (000 Tons)	Canada (000 Tons)	Production in Maritime Provinces as % of Total Production %
Average 1874 - 1879	89	7	96	96	100.0 (b)
" 1880 - 1884	124	16	140	141	99.3
" 1885 - 1889	122	32	155	161	96.3
" 1890 - 1894	172	41	213	218	97.7
" 1895 - 1899	142	84	226	227	99.6
" 1900 - 1904	185	120	304	308	98.7
" 1905 - 1909	308	119	427	442	96.6
" 1910 - 1914	368	90	457	555	82.3
" 1915 - 1919	193	45	238	321	74.1
" 1920 - 1924	317	75	392	520	75.4
" 1925 - 1929	804	72	876	1,021	85.8
" 1930 - 1934	514	48	562	644	87.3
" 1935 - 1936	592	35	627	688	91.1

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(a) Figures from 1874 - 1885 inclusive are for Gypsum Exports only.

(b) The small amount credited to Ontario for this period was not sufficient to affect the totals when the figures were taken to the nearest thousand.

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TABLE NO. 21
(a)
GRINDSTONES PRODUCTION 1886 - 1936

Five Year Averages

	Nova Scotia	New Brunswick	Total Maritime Provinces	Canada	Maritime Production as % of Total Production
	Tons	Tons	Tons	Tons	%
Average 1886 - 1890	1,402	3,271	4,673	4,673	100.0
" 1891 - 1895	2,016	2,302	4,319	4,319	100.0
" 1896 - 1900	1,414	3,247	4,661	4,661	100.0
" 1901 - 1905	964	4,025	4,988	4,988	100.0
" 1906 - 1910	549	4,025	4,574	4,574	100.0
" 1911 - 1915	348	3,599	3,947	3,947	100.0
" 1916 - 1920	280	2,428	2,707	2,707	100.0
" 1921 - 1925	264	1,503	1,766	1,911	92.4
" 1926 - 1930	67	1,476	1,543	1,916	80.5
" 1931 - 1935	27	365	391	628	62.3
1936	70	412	482	569	84.7
1937	37	288	325	412	78.9

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(a) Including, after 1892, Pulpstones, Sharpening Stones and Polishing Grit.

TABLE NO. 22

CLAY PRODUCTS INDUSTRY - 1886-1936

Production in five year averages.

	Nova Scotia		New Brunswick		Maritimes		Canada
	Value	Per Cent of Domin-ion Total	Value	Per Cent of Domin-ion Total	Value	Per Cent of Domin-ion Total	Value
	\$	%	\$	%	\$	%	\$
Average 1886-90 (a)	52,973	3.4	46,138	3.0	99,111	6.4	1,543,228
Average 1891-95 (b)	74,183	3.2	46,462	2.0	120,645	5.2	2,313,595
Average 1896-1900 (c)	130,728	4.9	93,307	3.5	224,035	8.4	2,676,475
Average 1901-1905	130,746	3.3	109,538	2.8	240,284	6.1	3,917,002
Average 1906-1910	159,373	2.7	60,831	1.0	220,204	3.7	5,888,954
Average 1911-1915	273,332	3.5	51,492	0.7	324,824	4.2	7,845,312
Average 1916-20	369,508	7.4	51,933	1.0	421,441	8.4	5,010,925
Average 1921-25 (d)	407,648	4.1	70,620	0.7	478,267	4.8	9,904,812
Average 1926-30	484,830	4.2	111,554	1.0	596,384	5.2	11,682,090
Average 1931-35	238,567	6.1	76,158	2.0	314,725	8.1	3,889,463
1936	355,254	10.2	102,256	2.9	457,510	13.2	3,471,027
1937	404,413	8.8	125,126	2.7	529,539	11.5	4,589,933

- (a) Four Year average only. Figures not available for N.S. 1889.
 (b) Average of two years only. " " " " N.S. or N.B. 1893-1895.
 (c) Average of three years only. " " " " N.S. or N.B. 1896-97.
 (d) Average of four years only. " " " " N.S. 1921.

TABLE NO. 23

PRODUCTION OF "OTHER STRUCTURAL MATERIALS" - MARITIME PROVINCES

	Stone			Sand and Gravel			Lime			Total "Other Structural Materials"		
	Value	% of Canada	Total for Canada	Value	% of Canada	Total for Canada	Value	% of Canada	Total for Canada	Value	% of Canada	Total "Other Structural Materials" Canada
Average 1906-10	227,559(a)	7.5		117,800			379,150(c)	11.8		4.4		8,611,205
" 1911-15	447,901	9.2		259,153	4.6		826,163(d)	17.7		4.7		17,403,531
" 1916-20	612,764	14.0		345,833	7.6		1,168,671(e)	16.2		6.2		18,738,853
" 1921-25	253,230	4.0		150,717	5.6		579,547(f)	4.8		2.1		27,105,919
" 1926-30	407,074	2.9		284,067	4.3		968,898	6.2		2.6		37,671,569
" 1931-35	440,180	7.7		645,428	12.5		1,269,202	6.9		6.0		21,261,622
1936	509,087	9.9	1,509,163	247,246	21.8	2,265,496	7.4	2,265,496	10.2			22,299,741
1937	433,348	6.8	2,243,247	300,477	21.7	2,977,072	7.5	2,977,072	10.0			29,811,736

(a) Average for 3 years only. Figures not available prior to 1908.

(b) Average for 3 years only. Figures not available prior to 1913.

(c) Average includes \$168,947 Cement. (1908, \$66,794; 1909, \$66,794; 1910, \$35,359)

(d) Average includes \$108,891 Cement. (1911, \$68,735; 1912, \$40,156)

(e) Average includes \$16,005 Cement. (1920, \$16,005).

(f) Average includes \$12,572 Cement. (1921, \$12,572).

APPENDIX - TABLE NO. 24. (a)

COAL RESOURCES OF NOVA SCOTIA

(Including seams of one foot or over, to a depth of 4,000 feet.)

	Actual Reserve		Probable Reserve		Additional		Total Reserves
	(Based on actual thickness and extent.)		(Approximate Estimate.)				
	Area Sq. Miles	Metric Tons	Area Sq. Miles	Metric Tons	Area Sq. Miles	Metric Tons	
		(000,000)		(000,000)		(000,000)	
<u>Cumberland County:</u>							
Bituminous	60	682	5	250	65	932	
<u>Colchester County:</u>							
Bituminous	-	-	1	1	1	1	
<u>Pictou County:</u>							
Bituminous	} 11	345	8	450	19	795	
Cannel		45	-	-		45	
<u>Antigonish County:</u>							
Cannel	-	-	1	20	1	20	
<u>Richmond County:</u>							
Bituminous	-	-	4	12	4	12	
<u>Inverness County:</u>							
Bituminous,							
Land Area	5.75	62	10	22	15.75	84	
Submarine Area	4	86	7	73	11	159	
<u>Cape Breton County:</u>							
Land Area:	92.66		-		92.66		
Bituminous		1,022		-		1,022	
Cannel		5		-		5	
<u>Marine - 3</u>							
<u>Mile Limit:</u>							
Bituminous	-	-	168.5	4,063	168.5	4,063	
<u>Marine - 3 to 5</u>							
<u>Miles:</u>							
Bituminous	-	-	-	-	73	2,639	
TOTALS	173.41	2,248	204.5	4,892	450.91	9,779	
Less quantity mined to and including 1936		172				172	
		2,076				9,607	

(a) This table has been prepared from figures contained in The Coal Resources of the World, an Inquiry made upon the Initiative of the Executive Committee of the XII International Geological Congress, Canada, 1913. Vol. II - Canada, by D. B. Dowling, F.R.S.C. The deduction for coal mined to 1936 has been taken from the Annual Report on the Mines, Province of Nova Scotia, 1935, p.178. 1936 - p.215.

TABLE NO. 25

COAL OUTPUT MARITIME PROVINCES

1867-1937 5 Year Averages

(Short Tons)

	<u>Nova Scotia</u>	<u>New Brunswick</u>	<u>Total Maritimes</u>
Average 1867-70	634,344		
Average 1871-75	954,089		
Average 1876-80	927,571		
Average 1881-85	1,495,085		
Average 1886-90	1,919,741	7,138 (a)	
Average 1891-95	2,325,072	6,872	2,331,944
Average 1896-1900	2,867,534	8,038	2,875,572
Average 1901-1905	5,243,109	18,187	5,261,296
Average 1906-1910	6,262,082	46,629	6,308,711
Average 1911-1915	7,520,535	79,262	7,599,797
Average 1916-1920	6,257,029	187,767	6,444,796
Average 1921-25	5,460,451	235,291	5,695,742
Average 1926-30	6,774,308	202,571	6,976,879
Average 1931-35	5,152,287	273,591	5,425,878
1936	6,649,102	368,618	7,017,720
1937	7,227,768	351,091	7,578,859

(a) Four year average - figures for 1886 not available.

TABLE NO. 26

NOVA SCOTIA COAL - SALES TO THE UNITED STATES

<u>Year</u>	<u>Total Sales</u>	<u>Sales to United States</u>	<u>Sales to United States as per cent of Total Sales</u>
	<u>Long Tons</u>	<u>Long Tons</u>	<u>%</u>
1937			
1936	5,371,966	59,227	1.1
Average 1931-35	4,173,782	36,184	0.9
Average 1926-30	5,517,410	20,473	0.4
Average 1921-25	4,304,930	121,035	2.8
Average 1916-20	5,047,531	233,917	4.6
Average 1911-15	6,027,059	409,254	6.8
Average 1906-10	5,047,894	500,235	9.9
Average 1901-05	4,147,785	735,402	17.7
Average 1896-1900	2,322,526	231,337	10.0
Average 1891-95	1,750,300	41,669	2.4
Average 1886-90	1,562,372	50,133	3.2
Average 1881-85	1,219,777	82,957	6.8
Average 1876-80	731,613	90,682	12.4
Average 1871-75	743,872	160,473	21.6
Average 1866-70	512,680	279,308	54.5
Average 1861-65	472,788	298,526	63.1
Average 1856-60	273,460	141,648	51.8
Average 1851-55	206,506	113,405	54.9
1850	180,084	117,173	65.1

SOURCE: Nova Scotia Department of Mines Reports.

TABLE NO. 27

NOVA SCOTIA COAL - SALES IN CANADA
(000's omitted)

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	Year	Total Sales (Long Tons) 000	SALES TO MARITIME PROVINCES		SALES TO QUEBEC AND ONTARIO		Total Sales in Canada (a) (Long Tons) 000	Total Sales in Canada as % of Total Sales
			Long Tons 000	% of Total	Long Tons 000	% of Total		
1937								
1936		5,372	2,628	48.9	2,586	48.1	5,214	97.0
Average	1931-35	4,174	1,942	46.5	2,101	50.3	4,042	96.8
"	1926-30	5,517	2,850	51.6	2,326	42.2	5,179	93.9
"	1921-25	4,305	2,683	62.3	1,199	27.9	3,882	90.2
"	1916-20	5,048	4,011	79.5	404	8.0	4,415	87.5
"	1911-15	6,027	3,156	52.4	2,126	35.3	5,282	87.7
"	1906-10	5,048	2,477	49.1	1,766	35.0	4,243	84.1
"	1901-05	4,148	1,851	44.6	1,378	33.2	3,228	77.8
"	1896-1900	2,323	1,077	46.4	916	39.4	1,993	85.8
"	1891-95	1,750	890	50.8	772	44.1	1,662	94.9
"	1886-90	1,562	771	49.4	650	41.6	1,422	91.0
"	1881-85	1,230	649	53.2	391	32.0	1,039	85.2
"	1876-80	732	425	58.1	128	17.5	553	75.6
"	1875	707	342	48.4	190	26.8	532	75.2
"	1874	749	336	44.8	162	21.7	493	66.5
"	1873	881	310	35.2	187	21.2	497	56.4

(a) The difference between total sales in Canada and the sum of sales to the Maritime Provinces and to Quebec, and Ontario is made up of shipments to Hudson Bay Ports:
(1929: 6,267)
(1928: 6,162)
(1927: 3,429)

SOURCE: Nova Scotia Department of Mines Reports.

TABLE NO.28

NOVA SCOTIA COAL - DISTRIBUTION OF SALES

<u>YEAR</u>	Total Sales Long Tons 000's <u>Omitted</u>	PERCENTAGE TO:			
		<u>Nova Scotia</u>	<u>Maritime Provinces</u>	<u>Quebec and (a) Ontario</u>	<u>Export Markets</u>
1936	5,371	40.9	48.9	48.1	3.0
1935	4,747	35.4	43.8	50.2	3.0
1934	5,169	29.3	40.2	57.6	2.2
1933	3,277	30.8	46.2	50.5	3.3
1932	3,359	30.1	47.2	49.2	3.6
1931	4,315	36.6	53.5	42.5	4.0
1930	5,281	39.3	53.1	41.9	5.0
1929	5,748	37.8	51.6	44.1	4.3
1928	5,518	37.4	49.7	44.4	5.9
1927	5,948	37.9	49.1	41.4	9.5
1926	5,090	42.7	55.3	38.9	5.8
1925	2,893	49.7	67.0	27.9	5.1
1924	4,448	45.0	58.8	35.3	5.9
1923	5,504	43.3	60.3	29.2	10.5
1922	3,962	42.2	58.9	28.0	13.1
1921	4,715	47.4	68.1	19.2	12.7
1920	5,087	57.6	77.0	4.7	18.3
1919	4,459	63.9	82.6	7.7	9.7
1918	4,613	65.4	86.2	2.9	10.9
1917	5,143	63.5	82.7	5.9	11.4
1916	5,933	56.7	71.1	16.8	12.1
1915	5,757	43.0	54.9	31.8	13.3
1914	6,164	40.1	52.7	38.6	8.7
1913	6,478	44.1	55.5	33.9	10.6

SOURCE: Nova Scotia Department of Mines Reports.

- (a) Ontario is included with Quebec because in the provincial statistics indirect shipments are not taken account of, and direct shipments to Ontario were not large.

TABLE NO. 29

COAL MADE AVAILABLE FOR CONSUMPTION - QUEBEC

(Short Tons)

Year	Total (000)	Bituminous (000)	Received from Nova Scotia (000)	Received from New Brunswick (000)	Total from Maritimes (000)	Received from Nova Scotia		Received from New Brunswick		Received from Maritimes	
						% of Bituminous	% of Total	% of Bituminous	% of Total	% of Bituminous	% of Total
1936	4,443	3,188	2,208	22	2,230	69.2	49.7	0.7	0.5	69.9	50.2
1935	3,848	2,359	1,736	14	1,749	73.6	45.1	0.6	0.4	74.2	45.5
1934	4,515	3,050	2,117	11	2,128	69.4	46.9	0.4	0.2	69.8	47.1
1933	3,427	2,163	1,484	1	1,485	68.6	43.3	0.0	0.0	68.7	43.3
1932	3,355	2,008	1,308	1	1,309	65.2	39.0	0.0	0.0	65.2	39.0
1931	3,882	2,680	1,571	-	1,571	58.6	40.5	0.0	0.0	58.6	40.5
1930	4,883	2,961	1,724	-	1,724	58.2	35.3	0.0	0.0	58.2	35.3
1929	5,096	3,567	2,232	-	2,232	62.6	43.8	0.0	0.0	62.6	43.8
1928	5,111	3,760	2,318	-	2,318	61.7	45.4	0.0	0.0	61.7	45.4
1927	5,693	4,020	2,298	9	2,307	57.2	40.4	0.2	0.2	57.4	40.6
1926	5,310	3,765	1,966	2	1,968	52.2	37.0	0.1	0.0	52.3	37.1
1925	4,756	3,381	811	1	812	24.0	17.1	0.0	0.0	24.0	17.1
1924	4,532	3,212	1,645	2	1,647	51.2	36.3	0.1	0.0	51.3	36.3
1923	6,517	4,701	1,533	7	1,540	32.6	23.5	0.2	0.1	32.8	23.6
1922	4,267	3,325	1,352	47	1,399	40.6	31.7	1.4	1.1	42.0	32.8
1921	4,898	3,586	888	14	902	24.8	18.1	0.4	0.3	25.2	18.4
1920	5,304	3,760	243	13	256	6.5	4.6	0.3	0.2	6.8	4.8

TABLE NO. 30

COAL MADE AVAILABLE FOR CONSUMPTION - ONTARIO

(Short Tons)

r	Total (000)	Bituminous (000)	Received from Nova Scotia (000)	Received from New Brunswick (000)	Total from Maritimes (000)	Received from Nova Scotia		Received from New Brunswick		Received from Maritimes	
						% of Bituminous Total	% of Total	% of Bituminous Total	% of Total	% of Bituminous Total	% of Total
6	11,337	9,344	1,045	1	1,046	11.2	9.2	0.0	0.0	11.2	9.2
5	11,051	9,096	923	-	923	10.2	8.4	0.0	0.0	10.2	8.4
4	11,251	9,346	778	-	778	8.3	6.9	0.0	0.0	8.3	6.9
3	9,226	7,629	521	-	521	6.8	5.6	0.0	0.0	6.8	5.6
2	8,892	7,224	281	-	281	3.9	3.2	0.0	0.0	3.9	3.2
1	10,628	8,823	175	-	175	2.0	1.6	0.0	0.0	2.0	1.6
0	12,774	10,693	170	-	170	1.6	1.3	0.0	0.0	1.6	1.3
9	13,775	11,429	141	-	141	1.2	1.0	0.0	0.0	1.2	1.0
8	12,931	10,752	63	45	109	0.6	.5	0.4	0.3	1.0	0.8
7	13,811	11,688	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
6	13,066	10,608	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
5	11,337	9,133	-	4	4	0.0	0.0	0.0	0.0	0.0	0.0
4	11,461	8,862	-	11	11	0.0	0.0	0.1	0.1	0.1	0.1
3	14,856	11,794	-	25	25	0.0	0.0	0.2	0.2	0.2	0.2
2	9,096	7,509	1	16	17	0.0	0.0	0.2	0.2	0.2	0.2
1	13,780	10,710	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
0	15,590	12,349	11	1	12	0.1	0.1	0.0	0.0	0.1	0.1

TABLE NO. 31

COAL MADE AVAILABLE FOR CONSUMPTION - NOVA SCOTIA

(Short Tons)

Year	Total (000)	Bituminous (000)	Produced in Nova Scotia (000)	Received from New Brunswick (000)	Total from Maritimes (000)	Produced in		Received from		Received from	
						Bituminous	% of Total	Bituminous	% of Total	Bituminous	% of Total
1936	2,684	2,682	2,585	-	2,585	96.4	96.3	0.0	0.0	96.4	96.3
1935	2,474	2,414	2,360	-	2,360	97.7	95.3	0.0	0.0	97.7	95.3
1934	2,957	2,891	2,838	-	2,838	98.2	96.0	0.0	0.0	98.2	96.0
1933	2,175	2,117	2,054	2	2,057	97.0	94.5	0.1	0.1	97.1	94.6
1932	2,007	1,953	1,903	-	1,903	97.5	94.8	0.0	0.0	97.5	94.8
1931	2,671	2,616	2,572	-	2,572	98.3	96.3	0.0	0.0	98.3	96.3
1930	3,590	3,515	3,478	-	3,478	98.9	96.9	0.0	0.0	98.9	96.9
1929	3,916	3,852	3,816	-	3,816	99.1	97.4	0.0	0.0	99.1	97.4
1928	3,626	3,567	3,535	-	3,535	99.1	97.5	0.0	0.0	99.1	97.5
1927	3,781	3,722	3,685	-	3,685	99.0	97.4	0.0	0.0	99.0	97.4
1926	3,728	3,675	3,651	-	3,651	99.3	97.9	0.0	0.0	99.3	97.9
1925	2,620	2,565	2,386	-	2,386	93.0	91.1	0.0	0.0	93.0	91.1
1924	3,172	3,122	3,054	-	3,054	97.8	96.3	0.0	0.0	97.8	96.3
1923	3,845	3,791	3,739	-	3,739	98.6	97.2	0.0	0.0	98.6	97.2
1922	3,046	3,019	3,010	-	3,010	99.7	98.8	0.0	0.0	99.7	98.8
1921	3,739	3,677	3,675	-	3,675	99.9	98.3	0.0	0.0	99.9	98.3
1920	4,145	4,082	4,080	1	4,080	99.9	98.4	0.0	0.0	99.9	98.4

TABLE NO. 32
COAL MADE AVAILABLE FOR CONSUMPTION - NEW BRUNSWICK

(Short Tons)

Year	Total (000)	Bituminous (000)	Received from Nova Scotia (000)	Produced in New Brunswick (000)	Total from Maritimes (000)	Produced in Nova Scotia		Produced in New Brunswick		Received from Maritimes	
						% of Bituminous	% of Total	% of Bituminous	% of Total	% of Bituminous	% of Total
1936	925	836	528	270	798	63.1	57.0	32.2	29.2	95.3	86.2
1935	869	800	498	268	766	62.2	57.3	33.4	30.8	95.6	88.1
1934	735	660	365	259	624	55.3	49.7	39.2	35.2	94.5	84.9
1933	687	591	320	251	571	54.2	46.6	42.4	36.5	96.6	83.1
1932	662	554	368	159	527	66.4	55.5	28.7	24.0	95.1	79.5
1931	658	573	409	127	536	71.3	62.1	22.2	19.3	93.5	81.4
1930	814	700	443	184	627	63.3	54.5	26.3	22.6	89.7	77.1
1929	812	701	427	198	625	60.9	52.6	28.2	24.4	89.1	77.0
1928	707	633	401	182	583	63.3	56.7	28.7	25.7	92.0	82.4
1928	807	705	470	140	609	66.6	58.2	19.8	17.3	86.4	75.5
1926	824	727	484	145	629	66.6	58.7	20.0	17.6	86.6	76.3
1925	770	695	348	178	526	50.1	45.2	25.6	23.1	75.7	68.3
1924	773	688	452	164	615	65.6	58.5	23.8	21.2	89.4	79.7
1923	885	795	564	129	693	70.9	63.7	16.2	14.6	87.1	78.3
1922	702	642	404	158	562	62.9	57.5	24.6	22.5	87.5	80.0
1921	788	706	500	164	664	70.8	63.4	23.2	20.8	94.0	84.2
1920	1,225	1,167	1,046	120	1,166	89.6	85.4	10.3	9.8	99.9	95.2

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that proper record-keeping is essential for the transparency and accountability of the organization. This section also outlines the various methods used to collect and analyze data, ensuring that the information is reliable and up-to-date.

2. The second part of the document focuses on the implementation of these practices. It details the steps involved in setting up a robust system for data collection and analysis. This includes identifying the key areas of focus, selecting appropriate tools and technologies, and training staff to ensure they are equipped to handle the data effectively. The goal is to create a seamless process that allows for easy access to information and facilitates decision-making.

3. The third part of the document addresses the challenges associated with data management. It recognizes that while the benefits of accurate records are clear, there are several obstacles that can hinder the process. These include limited resources, lack of standardized procedures, and the potential for data loss or corruption. The document provides strategies to overcome these challenges, such as regular backups, secure storage solutions, and the establishment of clear protocols for data handling.

4. The final part of the document concludes by reiterating the importance of continuous improvement. It stresses that the system for data collection and analysis is not static and must evolve over time to meet the changing needs of the organization. Regular reviews and updates are necessary to ensure that the system remains effective and efficient. The document ends with a call to action, encouraging all stakeholders to work together to maintain the highest standards of data integrity and transparency.

TABLE NO. 33

COAL MADE AVAILABLE FOR CONSUMPTION - MARITIME PROVINCES

(Short Tons)

Year	Total (000)	Bituminous (000)	Received from Nova Scotia (000)	Received from New Brunswick (000)	Total from Maritimes (000)	Received from Nova Scotia		Received from New Brunswick		Received from Maritimes	
						% of Bituminous Total	% of Total	% of Bituminous Total	% of Total	% of Bituminous Total	% of Total
1936	3,704	3,607	3,193	272	3,465	88.5	86.2	7.5	7.3	96.0	93.5
1935	3,442	3,305	2,944	271	3,215	89.1	85.5	8.2	7.9	97.3	93.4
1934	3,781	3,628	3,277	262	3,538	90.3	86.7	7.2	6.9	97.5	93.6
1933	2,931	2,774	2,436	256	2,692	87.8	83.1	9.2	8.7	97.0	91.8
1932	2,750	2,582	2,339	161	2,500	90.6	85.1	6.2	5.8	96.8	90.9
1931	3,419	3,271	3,058	127	3,185	93.5	89.4	3.9	3.7	97.4	93.1
1930	4,507	4,309	4,009	184	4,193	93.0	88.9	4.3	4.1	97.3	93.0
1929	4,826	4,645	4,326	198	4,524	93.1	89.6	4.3	4.1	97.4	93.7
1928	4,419	4,282	4,020	182	4,201	93.9	91.0	4.2	4.1	98.1	95.1
1927	4,685	4,517	4,240	140	4,379	93.9	90.5	3.1	3.0	97.0	93.5
1926	4,646	4,491	4,222	146	4,368	94.0	90.9	3.2	3.1	97.2	94.0
1925	3,475	3,340	2,791	178	2,970	83.6	80.3	5.3	5.1	88.9	85.4
1924	4,017	3,879	3,571	164	3,735	92.1	88.9	4.2	4.1	96.3	93.0
1923	4,818	4,670	4,385	129	4,514	93.9	91.0	2.8	2.7	96.7	93.7
1922	3,825	3,734	3,485	158	3,643	93.3	91.1	4.2	4.1	97.5	95.2
1921	4,606	4,455	4,247	164	4,411	95.3	92.2	3.7	3.6	99.0	95.8
1920	5,496	5,370	5,246	121	5,367	97.7	95.5	2.3	2.2	99.9	97.7

TABLE NO. 34

NOVA SCOTIA - OUTPUT AND DISPOSITION OF COAL

(Short Tons)

Year	SHIPMENTS				Net Added to (+) or Taken from (-) Bank	Added to waste heap (net) and lost in Washing	Supplied to Employees	Used by Coal Mining Companies for power and other purposes	Total Output
	To Railroad Companies for (000)	To Shipping Companies for Bunkers (000)	For Other Purposes (000)	Total Shipped (000)					
1937					(000)	(000)	(000)	(000)	(000)
1936	1,448	281	4,273	6,002	+ 94	24	117	411	7,228
1935	1,400	324	3,580	5,304	- 34	37	121	393	6,649
1934	1,604	237	3,898	5,738	+ 49	48	110	396	5,821
1933	534	163	3,380	4,077	- 4	41	89	354	6,342
1932	532	117	2,969	3,619	- 22	46	96	345	4,085
1931	780	170	3,510	4,460	- 26	20	112	390	4,956
1930	1,153	253	4,242	4,648	+ 13	14	121	457	6,253
1929	1,136	258	4,970	6,364	+ 24	15	130	523	7,056
1928	1,053	316	4,789	6,157	- 64	20	122	510	6,744
1927	1,129	306	4,922	6,357	+ 54	19	121	522	7,072
1926	907	461	4,696	6,064	+ 56	16	122	490	6,747
1925	558	168	2,693	3,418	- 50	7	92	376	3,843
1924	816	276	3,779	4,870	+ 46	6	125	510	5,557
1923	983	264	4,637	5,884	- 26	15	163	562	6,598
1922	691	310	3,857	4,858	+ 26	26	151	509	5,569
1921	1,060	347	3,599	5,006	+ 7	40	149	532	5,735
1920		504		5,689	- 2	29	159	562	6,437

SOURCE - COAL STATISTICS OF CANADA.

TABLE NO. 35
NEW BRUNSWICK - OUTPUT AND DISPOSITION OF COAL

(Short Tons)

Year	SHIPMENTS TO		Total Shipped (000)	Net Added to (+) or Taken from (-) Bank (000)	Added to waste heap (net) and lost in Washing (000)	Supplied to Employees (000)	Used by Coal Mining Companies for power and other purposes (000)	Total Output (000)
	Canadian Markets (000)	Export Markets (000)						
1937								
1936	178	8	361	-	1	4	4	351
1935	159	3	339	-	1	4	3	369
1934	151	2	308	-	1	3	3	346
1933	140	1	305	-	1	3	3	315
1932	71	1	206	+	-	3	3	312
1931	58	-	173	-	-	3	6	213
1930	61	-	200	-	-	3	6	182
1929	67	-	208	-	-	3	7	209
1928	43	-	195	-	-	3	9	219
1927	152	1	191	+	-	3	8	204
1926	145	2	167	-	-	3	3	173
1925	166	4	202	-	-	3	3	208
1924	180	16	211	-	-	3	3	217
1923	204	36	265	-	-	4	8	277
1922	222	30	278	+	-	3	6	288
1921	172	9	181	+	-	2	2	187
1920	151	12	164	-	-	2	7	172

SOURCE - COAL STATISTICS OF CANADA.

THE UNIVERSITY OF CHICAGO

DEPARTMENT OF CHEMISTRY

RESEARCH REPORT

NO. 100

BY

JOHN D. COLEMAN

AND

ROBERT H. COLEMAN

CHICAGO, ILLINOIS

TABLE NO. 36.

THE COAL MINING INDUSTRY OF NOVA SCOTIA (a)

(1) Year	(2) Average No. of Employees Highest No. of Employees reported in each year	(3) Tons of Coal Produced (000)	(4) Total Man-Days Worked (000)	(5) Total Wages Paid (000)	(b) (6) Tons Per Man-Day	(c) (7) Average No. of Days worked per man	(d) (8) Average Daily Wage	(e) (9) Average Yearly earnings on the basis of average number employed	(f) (10) Average yearly earnings on the basis of the highest number reported each year
1936	12,848	6,649	2,921	13,292	2.28	227	4.55	1,035.00	1,019.00
1935	12,674	5,822	2,751	12,071	2.12	217	4.39	952.00	934.00
1934	12,051	6,342	2,808	12,056	2.25	233	4.29	1,000.00	951.00
1933	11,861	4,558	2,016	8,668	2.26	170	4.30	731.00	709.00
1932	12,623	4,084	1,964	9,978	2.08	155	5.08	790.00	748.00
1931	13,388	4,956	2,443	13,415	2.02	182	5.49	1,002.00	986.00
1930	13,376	6,253	3,048	17,126	2.05	228	5.62	1,280.00	1,246.00
1929	12,760	7,056	3,403	18,786	2.07	266	5.52	1,472.00	1,436.00
1928	13,333	6,744	3,237	18,885	2.08	243	5.83	1,416.00	1,387.00
1927	13,317	7,072	3,262	15,676	2.17	245	4.81	1,177.00	1,162.00
1926	12,100	6,747	2,988	14,042	2.26	247	4.70	1,160.00	1,046.00
1925	8,333	3,843	1,870	10,708	2.06	224	5.73	1,285.00	876.00
1924	12,500	5,557	2,527	12,450	2.20	202	4.93	996.00	931.00
1923	13,385	6,598	3,521	15,325	1.87	263	4.35	1,145.00	1,119.00
1922	14,068	5,569	2,966	12,078	1.88	211	4.07	859.00	521.00
1921	12,626	5,735	2,906	14,710	1.97	230	5.06	1,165.00	1,112.00
1920	13,140	6,437							

(a) This table has been prepared from figures contained in Coal Statistics of Canada, op. cit.

(b) Column 6 is obtained by dividing the figures in column 3 by the corresponding figures in column 4.

(c) Column 7 is obtained by dividing the figures in column 4 by the corresponding figures in column 1.

(d) Column 8 is obtained by dividing the figures in column 5 by the corresponding figures in column 4.

(e) Column 9 is obtained by dividing the figures in column 5 by the corresponding figures in column 1.

(f) Column 10 is obtained by dividing the figures in column 5 by the corresponding figures in column 2.

TABLE NO. 37

PROVINCE OF NOVA SCOTIA

Year	EMPLOYMENT			NET VALUE OF PRODUCTION		
	All Industries	Forest Industries	Shipyards	All Industries	Forest Industries	Shipyards
	No.	No.	No.	(\$)	(\$)	(\$)

(000's omitted)

1870	15,595	7,489	2,204	6,532	2,554	1,072
1890	34,965	11,648	1,599	14,944	5,406	924
1926	16,782	5,290	546	33,817	4,215	1,085
1929	20,966	4,817	792	42,786	5,059	1,525
1935	16,060	4,241	465	55,457	6,375	1,004

PROVINCE OF NEW BRUNSWICK

1870	18,352	10,745	1,481	7,936	4,316	739
1890	26,675	10,178	422	11,348	4,426	206
1926	17,366	6,202	-	29,053	11,435	-
1929	18,517	7,192	-	30,980	11,099	-
1935	13,937	5,143	-	30,743	13,219	-

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PROVINCE OF PRINCE EDWARD ISLAND

1890	7,910	1,337	99	2,254	526	45
1926	2,261	79	-	1,432	148	-
1929	2,238	178	-	1,746	207	-
1935	1,108	201	-	1,493	149	-

TABLE NO. 38

PROVINCE OF NOVA SCOTIA		Net Value of Production				
	Employment		1890			1935
	1870	1926	1890	1926	1929	
	No.	No.	No.	No.	No.	
All Industries	15,595	16,782	14,944	33,817	42,786	35,457
Forest Products Industries	7,489	3,290	5,406	4,215	5,059	6,374
Animal "	2,046	4,418	2,236	3,552	3,909	2,921
Vegetable "	1,080	2,214	1,107	4,276	5,210	4,018
Textile "	1,247	1,789	1,894	3,051	3,334	2,848
Iron and Steel Industries	2,244	2,525	2,375	7,960	14,044	6,827
Non-ferrous Metals "	79	15	146	20	25	34
Non-metallic Minerals "	913	949	900	5,611	4,693	4,742
Chemical Products "	50	209	222	1,098	1,257	747
Central Electric Stations		460		2,206	3,088	5,096
Printing & Related Industries	252	791	282	1,636	2,064	1,771
Miscellaneous	195	122	376	192	103	79
(000's omitted)						
PROVINCE OF NEW BRUNSWICK						
All Industries	18,352	17,366	11,348	29,053	30,980	30,743
Forest Products Industries	10,745	6,202	4,426	11,435	11,099	13,219
Animal "	1,804	3,286	1,427	2,797	3,068	1,892
Vegetable "	815	1,819	830	5,119	4,847	4,500
Textile "	1,789	2,597	1,735	3,286	2,490	2,314
Iron and Steel Industries	1,986	2,070	1,564	2,762	3,553	2,289
Non-ferrous Metals "	116	107	165	216	819	310
Non-metallic Minerals "	638	232	487	445	879	661
Chemical Products Industries	51	101	130	350	327	535
Central Electric Stations		279		1,399	2,209	3,184
Printing & Related Industries	222	431	300	963	1,347	1,089
Miscellaneous	186	242	284	281	342	750

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the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.5 billion, from 1.1 billion in 1990 to 2.6 billion in 2010. The number of people aged 15 and over is expected to increase by 1.5 billion, from 3.5 billion in 1990 to 5.0 billion in 2010. The total population of the world is expected to increase by 3.1 billion, from 4.6 billion in 1990 to 7.7 billion in 2010. The population of the world is expected to be 7.7 billion in 2010, with 2.6 billion under 15 years of age and 5.0 billion aged 15 and over.

1. 1990年12月25日，在“九七”香港回归前，香港各界人士纷纷发表文章，就香港前途问题提出自己的看法。

[illegible]

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 200 million to 400 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

the 1990s, the number of people in the world who are under 15 years of age is expected to increase from 1.1 billion to 1.5 billion. The number of people aged 65 and over is expected to increase from 200 million to 400 million. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion. The number of people aged 15 and over is expected to increase from 3.5 billion to 4.5 billion.

[illegible][illegible][illegible][illegible][illegible]

1. 1990年12月25日，在“九七”香港回归前，香港各界人士纷纷发表文章，讨论香港回归后的前途。其中，不少文章都提到，香港回归后，将实行“一国两制”，保持香港的繁荣和稳定。

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TABLE NO. 38 (Continued)

PROVINCE OF PRINCE EDWARD ISLAND									
Employment					Net Value of Production				
1890	1926	1929	1935	1890	1926	1929	1935		
No.	No.	No.	No.	\$	\$	\$	\$		\$
					(000's omitted)				
All Industries	7,910	2,261	1,108	2,254	1,432	1,746	1,493		
Forest Products Industries	1,337	79	201	526	148	207	149		
Animal	4,091	1,706	463	696	562	565	381		
Vegetable	307	109	130	263	191	270	295		
Textile	979	13	33	310	15	-	37		
Iron and Steel Industries	582	189	76	241	174	255	143		
Non-ferrous Metals	13	-	-	7	-	-	-		
Non-metallic Minerals	372	12	16	99	37	46	34		
Chemical Products Industries	11	-	11	9	-	-	2		
Central Electric Stations		33	59		159	203	279		
Printing & Related Industries	100	115	119	57	141	200	173		
Miscellaneous	118	5	-	46	5	-	-		

1. *Pharmaceuticals* (1997) 10, 11.



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